DOCUMENT RESUME

ED 442 033 CG 030 072

TITLE	National Household Survey on Drug Abuse Main Findings 1998.
INSTITUTION	Substance Abuse and Mental Health Services Administration (DHHS/PHS), Rockville, MD. Office of Applied Studies.
PUB DATE	2000-03-00
NOTE	438p.
CONTRACT	283-97-9007
AVAILABLE FROM	Nat'l Clearinghouse for Alcohol and Drug Information, P.O. Box 2345, Rockville, MD 20847-2345; Tel: 301-468-2600; Tel: 800-729-6686 (Toll Free).
PUB TYPE	Numerical/Quantitative Data (110) -- Reports - Research (143)
EDRS PRICE	MF01/PC18 Plus Postage.
DESCRIPTORS	*Alcohol Abuse; Cocaine; Correlation; Demography; *Drug Abuse; Family (Sociological Unit); Heroin; *Incidence; Marijuana; Smoking; *Trend Analysis

ABSTRACT

This survey, monitoring levels of substance abuse in the United States, serves as a tool for researchers and policymakers to better understand and control substance abuse problems. It provides information on 25,500 participants' use of illicit drugs, alcohol, and tobacco among the civilian, noninstutionalized population. Trends for the years, 1979, 1985, and 1991 through 1998 are included. For each drug (marijuana, cocaine, inhalants, hallucinogens, heroin, non-medical use of psychotherapeutics, alcohol, cigarettes, and smokeless tobacco), there are tables arranged to facilitate group comparisons. Data for the total population is presented for each of four age groups, and then compared by sex, race/ethnicity, population density, region, adult education, and current employment. Data on drug use among special populations (drug use and criminal behaviors, drug use and pregnancy, drug use among adolescents exposed to drug education messages) is also included. Seven appendixes detail procedures: Appendix A contains definitions of key terms; Appendixes B, C, and D include information on the quality of data and testing procedures; Appendix E explains the adjustment procedure that was applied to the 1979-1993 NHSDA estimated in order to facilitate long-term trend analysis; Appendix F contains answer sheets for 1998 NHSDA questionnaire; Appendix G contains pages from the questionnaire. (Contains 124 references.) (Author/JDM)

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National Household Survey on Drug Abuse Series: H-11

National Household Survey On Drug Abuse Main Findings 1998

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NATIONAL HOUSEHOLD SURVEY ON DRUG ABUSE:

MAIN FINDINGS 1998

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Services Administration

ACKNOWLEDGMENTS

This publication was developed for the Substance Abuse and Mental Health Services Administration (SAMHSA), Office of Applied Studies (OAS), by the Research Triangle Institute (RTI) under Contract No. 283-97-9007. Significant contributors at RTI include Jody M. Greene, Mary Ellen Marsden, Rebecca P. Sanchez, Larry A. Kroutil, Lisa E. Packer, Teresa R. Davis, Li-Tzy Wu, Dorothy L. Faulkner, Richard S. Straw, Kathryn A. Restivo, Brenda K. Porter, and Brenda J. Smith. Mary Ellen Marsden was the task leader for the production of the report, and Tom Virag was RTI's project director for the NHSDA contract. Janet Greenblatt was the OAS monitor for the production of this report, and Joseph Gustin was the project officer for the contract. The report was reviewed by Joseph C. Gfroerer, Director, Division of Population Surveys, OAS.

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http://www.samhsa.gov
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http://www.health.org

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March 2000

PREFACE

This report presents results from the 1998 National Household Survey on Drug Abuse (NHSDA) conducted by the Office of Applied Studies (OAS) within the Substance Abuse and Mental Health Services Administration (SAMHSA). Three other volumes present data from the 1998 study: (1) National Household Survey on Drug Abuse: Population Estimates 1998 (DHHS Publication No. SMA 99-3327); (2) Summary of Findings from the 1998 National Household Survey on Drug Abuse (DHHS Publication No. SMA 99-3328); and (3) 1998 NHSDA Public Use File and Codebook (available from OAS/SAMHSA in early 2000), which contains a SAS dataset on magnetic tape or CD-ROM. The public use files from 1979 to 1997 are available on the World Wide Web (WWW) within the Substance Abuse and Mental Health Data Archive (SAMHDA) at the University of Michigan: http://www.icpsr.umich.edu/SAMHDA/nhsda.html; the 1998 file soon will be available from this source.

The Main Findings report contains a more comprehensive description of the NHSDA methodology and reporting of the survey results than either the Population Estimates or the Summary of Findings reports, which are intended to provide early release of a smaller subset of the survey results.

The 1999 NHSDA incorporated major methodological changes, including the implementation of a 50-State design and the introduction of computer-assisted interviewing methods for both screening households and interviewing selected respondents. Besides increasing the capabilities for producing national estimates, the 50-State design will allow SAMHSA to provide direct estimates for eight large States and estimates based on small area estimation methods for the remaining States and the District of Columbia. The sample size was increased from 25,500 in 1998 to about 70,000 in 1999. To provide the ability to compare 1999 estimates with earlier NHSDA estimates, a national sample of around 15,000 also was surveyed in 1999 using the previous methodology—paper-and-pencil interviewing. Because of the major changes in the NHSDA sample and data collection methodology, OAS is reviewing its NHSDA publication plan. It is likely that the Summary of Findings, Population Estimates, and Main Findings reports, if continued, will be modified in format and content.

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Introduction and Highlights

Substance abuse continues to be one of the foremost health and social problems faced by our Nation today. The use of illicit drugs, alcohol, and tobacco is responsible for more than one in four preventable deaths each year, as well as substantial health care costs, productivity loss, criminal activity, and unmeasurable suffering (Institute for Health Policy, 1993). Recent estimates reveal that alcohol and drug abuse cost the Nation about $246 billion in 1992, $148 billion associated with alcohol abuse and alcoholism and $98 billion associated with drug abuse and dependence (Harwood, Fountain, & Livermore, 1998). A creditable, national surveillance system for monitoring the levels of substance abuse in the United States is one of the essential tools for allowing researchers and policymakers to better understand and control this problem. The National Household Survey on Drug Abuse (NHSDA) was established in 1971 for this purpose.

This report presents the main findings of the 1998 NHSDA. The 1998 survey provides information on the use of illicit drugs, alcohol, and tobacco among the estimated 218 million members of the civilian, noninstitutionalized population aged 12 or older in the United States (hereinafter referred to as the "surveyed population"). Specifically, the Main Findings report provides four main types of information:

- prevalence data on the use of illicit drugs, alcohol, and tobacco for the surveyed population as a whole and specifically for four age groups: 12 to 17, 18 to 25, 26 to 34, and 35 or older;
- comparisons across survey years (i.e., "trend analyses") between 1979 and 1998 regarding the prevalence of use of illicit drugs, alcohol, and tobacco for the surveyed population;
- demographic correlates of the use of illicit drugs, alcohol, and tobacco among the surveyed population; and
- data on patterns of drug use among the surveyed population regarding problems arising from this use; perceptions of risk of using illicit drugs, alcohol, or cigarettes; treatment history of the population; and substance use among special populations.

The following pages provide highlights of the main findings from each chapter of this report.

Chapter 1

Description of the Report and the Survey. Chapter 1 describes the NHSDA, including its history and purposes, survey methods, and guidelines for interpreting statistics presented in this report.

Chapter 2

Trends in Drug Use, 1979 to 1998. Rates of use of illicit drugs, alcohol, and tobacco for the total household population aged 12 or older in the past year and past month generally decreased between 1979 and 1998, were relatively stable from 1991 to 1998, and did not change appreciably between 1997 and 1998. Lifetime rates of use of most illicit drugs increased for the total population between 1979 and 1998, while lifetime rates of inhalants and psychotherapeutics decreased. Among youths aged 12 to 17, however, rates of lifetime, past year, and past month use of any illicit drug decreased significantly between 1997 and 1998. These decreases contrast with increases in drug use among adolescents during the earlier part of the 1990s. Alcohol use was relatively stable among youths between 1997 and 1998, while past year cigarette use declined between 1997 and 1998.

Chapter 3

Marijuana. Marijuana was the most commonly used illicit drug in 1998. About 33% of the 218 million persons represented in the 1998 NHSDA reported marijuana use in their lifetime, 9% reported use in the past year, and 5% reported current use (in the past month). Marijuana use in the past year and past month was more common among males and young adults aged 18 to 25. Additionally, current marijuana use tended to be lowest in nonmetropolitan areas and among college graduates and highest among the unemployed. Current users of marijuana were much more likely than nonusers to drink alcohol, smoke cigarettes, and/or use other illicit drugs.

Chapter 4

Cocaine. After marijuana, more people reported having used cocaine at some point in their lifetime than any other illicit drug. Around 11% of the persons represented in 1998 reported cocaine use in their lifetime, 2% reported use in the past year, and nearly 1% reported current use (in the past 30 days). Past year use and current cocaine use were more common among young adult males aged 18 to 25 than among all other age-gender groups. About 3% of the males in the 18 to 25 age group were current cocaine users. Additionally, past year and current cocaine use tended to be higher among adults with less than a high school education and among those who were unemployed. An estimated 2% of the surveyed population reported crack use in their lifetime, 0.4% reported past year crack use, and 0.2% reported current crack use. Reported lifetime and past year crack use were relatively more common among males, blacks, adults who did not graduate from high school, and the unemployed.[1]

Chapter 5

Inhalants, Hallucinogens, and Heroin. Approximately 10% of the NHSDA-surveyed population in 1998 reported ever having used hallucinogens, and roughly 6% reported lifetime use of inhalants. The lifetime prevalence of heroin use remained quite low (1%) compared with most other drugs. In general, use of inhalants and hallucinogens was more commonly reported among males and whites, and least reported in nonmetropolitan areas and among blacks. Heroin use was more commonly reported among males and blacks.

Chapter 6

Nonmedical Use of Psychotherapeutic Drugs. Psychotherapeutic drugs as defined here include prescription-type (as opposed to over-the-counter) stimulants, sedatives, tranquilizers, and analgesics that are used without a prescription or other than as prescribed. In 1998, approximately 9% of persons aged 12 or older (about 20 million persons) reported using at least one psychotherapeutic drug for nonmedical reasons in their lifetime; 3% (about 6 million persons) reported illicit psychotherapeutic use in the past year; and 1% (2 million persons) reported use in the past month. With few exceptions, young adults aged 18 to 25, males, and whites were more likely than persons in the other demographic subgroups to report the nonmedical use of psychotherapeutic drugs.

Chapter 7

Alcohol. Since the inception of the NHSDA in 1971, alcohol has been reported as the most commonly used psychoactive drug in the United States. Approximately 178 million (81%) of the

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[1] In the interest of readability for this report, "white" is used to indicate "white, non-Hispanic" and "black" to indicate "black, non-Hispanic."

218 million people aged 12 or older represented in 1998 reported alcohol use in their lifetime. An estimated 140 million persons (64%) reported use in the past year, and 113 million persons (52%) reported current use (in the previous month). Furthermore, about 12 million persons (6%) reported heavy alcohol use in the past month (five or more drinks on the same occasion on each of 5 or more days in the past 30 days), and 33 million persons (15%) reported "binge" alcohol use in that period (five or more drinks on the same occasion on at least 1 day in the past 30 days). Both the prevalence and intensity of alcohol use were greatest among males. In addition, respondents aged 18 to 34 tended to report higher rates of past year and current alcohol use than did those in younger or older age groups. Although in the total population adults with more education were more likely to have used alcohol in the past month, heavy alcohol use was more common among the less educated.

Chapter 8

Cigarettes, Smokeless Tobacco, and Cigars. In 1998, approximately 70% of the population aged 12 or older had tried at least a few puffs of a cigarette at some point in their lifetime. Approximately 31% of the population aged 12 or older had smoked within the past year, and 28% were current smokers (i.e., they had smoked within the past 30 days). Rates of past year and current cigarette use among young adults aged 18 to 25 increased significantly from the mid-1990s, when they had reached a low point, to 1998. Use of smokeless tobacco products or cigars was less prevalent than cigarette use. An estimated 17% of the population aged 12 or older had ever tried smokeless tobacco, 4% had used it in the past year, and only 3% had used it in the past month. More than one-third of the population aged 12 or older smoked at least a puff of a cigar in their lifetime, and about 7% reported that they smoked a cigar in the past month. In 1998, tobacco products were more likely to be used currently by males than by females; cigarettes were more likely to be used by blacks, while cigars and smokeless tobacco were more likely to be used by whites. In particular, current smokeless tobacco use occurred predominantly among white males in the young adult and middle adult age groups. Adults without a college education also were more likely than adults who had completed college to be current users of cigarettes or smokeless tobacco.

Chapter 9

Problems Associated with Marijuana, Cocaine, Alcohol, and Cigarettes. During 1998, about 686,000 cocaine users, 3.3 million marijuana users, 10.8 million drinkers of alcohol, and 22 million cigarette smokers reported three or more problems that are considered potential signs of dependence on each respective substance. Among those who reported heavy cigarette use (currently smoking about a pack or more a day) or use of marijuana at least 12 days in the past year, 49% and 28%, respectively, reported three or more problems. Among heavy drinkers, 66% reported one or more problems and 36% reported three or more problems. The most frequently reported problems for past year users of marijuana and alcohol were spending a great deal of time getting or using the drug or getting over its effects, using the drug more often or in larger amounts than intended, and developing a tolerance for the substance. Among heavy cigarette smokers, the most frequently reported problems were wanting or trying to quit or cut down on using cigarettes but not being able to do so, and spending a great deal of time getting or using cigarettes or getting over their effects. Among past year users of cocaine aged 12 or older, the most prevalent problem was the occurrence of psychological problems associated with cocaine use. Among past year users of marijuana, alcohol, and cocaine, as well as heavy cigarette smokers, users in the younger age groups tended to report higher rates of problems than older users.

Chapter 10

Drug Use Patterns. About half of the surveyed population reported having used only alcohol and no other drug in their lifetime (47%), slightly more than one-third reported using both alcohol and some illicit drug (35%), and 1% or less reported using only some illicit drug (and no alcohol) in their lifetime. Lifetime needle use, reported by about 1% of the population aged 12 or older, was relatively more common among males and adults aged 18 or older. Consistent with previous reports, cigarettes, alcohol, and inhalants tended to be first used at relatively early ages for the 1998 NHSDA population, while use of cocaine and heroin usually began at later ages.

Chapter 11

Risk of Using Drugs, Ease of Getting Drugs, and Risky Behaviors. Most people perceived that one takes great risks of harming oneself with any use of cocaine or heroin and with heavy alcohol use nearly everyday. About two-thirds of the population assigned great risk to smoking a pack of cigarettes everyday. The prevalences of perceptions that great risks may be incurred with drug use were generally lowest among youths aged 12 to 17. Additionally, individuals who had used illicit drugs were less likely to perceive great risk from use than were those who had not used drugs. The majority of the total population reported that marijuana was easy to obtain. Between 30% and 38% thought that cocaine, crack, and LSD might be obtained easily. In general, those who had used at least one illicit drug were more likely than nonusers to think that getting any of the drugs except heroin would be easy. About 6% of the population aged 12 or older reported being approached during the past month by someone offering to sell drugs. Past year illicit drug use and heavy alcohol use were highly related to other types of high-risk behaviors, such as driving while under the influence.

Chapter 12

Drug and Alcohol Abuse Treatment and Workplace Programs. The number of individuals receiving treatment for alcohol or drug abuse was much smaller than the number who reported having problems resulting from their use of substances. Although an estimated 10.8 million people in the U.S. noninstitutionalized population aged 12 or older reported three or more problems related to their alcohol use in the past year (see Chapter 9), only about 2.1 million reported receiving treatment for that use. Similarly, 1.5% and 0.3% of the population reported three or more problems resulting from marijuana and cocaine use, respectively, while only 0.7% of the population reported receiving treatment for illicit drug use. Young adults aged 18 to 25 were more likely than other age groups to have received treatment in the past year, perhaps related to their higher rates of substance use. Past month use of illicit drugs was lower among employees of larger establishments, and access to drug and alcohol prevention and treatment resources in the workplace was higher in these establishments.

Chapter 13

Substance Use Among Special Populations. Family income below $9,000, lack of health insurance, and having a family member in the same household receiving welfare were associated with any illicit drug use, marijuana use, and cocaine use in the past year. Past year illicit drug use was associated with being arrested and booked for a variety of criminal activities. In addition, for both youths and adults, use of illicit drugs or being drunk on 51 or more days in the past year were consistently related to a variety of criminal or potentially unlawful behaviors, regardless of whether these behaviors resulted in an arrest. Pregnant women were less likely than nonpregnant women to report past month illicit drug use, past month "binge" alcohol use, and past month cigarette use. These differences were found irrespective of age, race/ethnicity, marital status, and educational attainment. Youths aged 12 to 17 and young adults aged 18 to 25 who had dropped out of school were significantly more likely than those who were not dropouts to have been past year users of any illicit drug, marijuana, or cocaine, and to have been drunk on 51 or more days in the past year. Youths who used illicit drugs in the past year were significantly less likely than nonusers to report that they received prevention messages as part of a class in school, while youths' exposure to prevention messages outside school was unrelated to illicit drug use or being drunk on 51 or more days in the past year.

Appendix A presents key NHSDA definitions for the survey years from 1972 to 1998. Appendix B discusses data collection operations, response rates, and imputation and missing data in the 1998 NHSDA. Appendix C presents the statistical methods used in this report and information on the sampling variances and design effects of the 1998 NHSDA estimates. Appendix D discusses sampling and weighting procedures. Appendix E explains the adjustment procedure conducted on the 1979-1993 NHSDA estimates to account for the new survey methodology used in the 1994 through 1998 NHSDAs. Appendix F contains the answer sheets from the 1998 NHSDA questionnaire. Appendix G contains selected pages from the questionnaire, including demographic and health questions.

Chapter 1: Description of the Report and the Survey

The 1998 National Household Survey on Drug Abuse (NHSDA) is the 18th in a series of studies designed to measure the prevalence and correlates of drug use in the United States and to monitor drug use trends over time. The National Commission on Marihuana and Drug Abuse sponsored the first two studies conducted in 1971 and 1972. The National Institute on Drug Abuse (NIDA) sponsored the NHSDA from 1974 to 1991. In October 1992, responsibility for conducting the NHSDA and preparing reports was moved to the Office of Applied Studies (OAS) within the Substance Abuse and Mental Health Services Administration (SAMHSA).

Three other volumes present data from the 1998 NHSDA:

- *National Household Survey on Drug Abuse: Population Estimates 1998* (DHHS Publication No. SMA 99-3327, NHSDA Series H-9);
- *Summary of Findings from the 1998 National Household Survey on Drug Abuse* (DHHS Publication No. SMA 99-3328, NHSDA Series H-10); and
- *National Household Survey on Drug Abuse: 1998 Public Use File and Codebook*, which contains an ASCII dataset and codebook on CD-ROM. The public use files from 1979 to 1997 are available on the World Wide Web (WWW) within the Substance Abuse and Mental Health Data Archive (SAMHDA) at the University of Michigan: http://www.icpsr.umich.edu/ SAMHDA/nhsda.html. The 1998 file will be available in early 2000 from this source (OAS, in press b).

The Population Estimates (OAS, 1999b) and Summary of Findings (OAS, 1999d) reports contain tabulations of 1998 data. The 1998 Main Findings report contains more detailed tables and a comprehensive analysis and discussion of the results, including trends, and more detail on the survey methodology.

Overview of NHSDA Main Findings Report

The 1998 NHSDA Main Findings report provides information about the prevalence of use of specific illicit drugs, alcohol, and tobacco. This report contains a total of 13 chapters, the first of which focuses on NHSDA methodology and background. Chapter 2 presents trend estimates for the following years: 1979, 1985, and 1991 through 1998. To account for methodological changes implemented in 1994, a statistical adjustment procedure was developed and applied to pre-1994 estimates presented in Chapter 2. (See Appendix E for a description of the adjustment method.) Readers need to be aware that all 1979-1993 data shown in this report may be different from those previously published in NHSDA Main Findings reports for 1979-1993.

Chapters 3 through 8 each focus on an individual drug or class of drug. Specifically, Chapter 3 focuses on marijuana use (including hashish); Chapter 4 on cocaine use (including crack); Chapter 5 on use of inhalants, hallucinogens (including phencyclidine [PCP]) and heroin; Chapter 6 on the nonmedical use of psychotherapeutics (e.g., stimulants, sedatives, tranquilizers, and analgesics); Chapter 7 on alcohol use; and Chapter 8 on tobacco use (including cigarettes, smokeless tobacco, and cigars). Each of these chapters presents estimates of substance use by demographic correlates (i.e., age, gender, race/ethnicity, population density, geographic region of residence, educational attainment among those aged 18 years old or older, and current employment status among those aged 18 or older) (see Appendix A for current and historical definitions of these variables). Other information presented in these chapters includes (as available) estimates of the number of days that the substances were used, other drugs that were used with the chapter's drug of interest, and methods of using particular drugs, such as heroin.

Chapters 9 and 10, respectively, focus on problems associated with substance use and drug use patterns (i.e., multiple drug use, age at first use, and needle use). Perceived risks from using drugs, perceived ease of obtaining drugs, and risky substance use-related behaviors (i.e., driving while impaired) are examined in Chapter 11, and alcohol and drug treatment experiences are examined in Chapter 12.

Chapter 13 presents data on substance use among a variety of special populations. This year's report contains sections focusing on (1) drug use by family income, health insurance status, and welfare assistance, (2) drug use and criminal behaviors, (3) drug use and pregnancy, (4) drug use and school dropout status, and (5) drug use among adolescents by exposure to drug education and prevention messages.

This report also contains six appendices. Appendix A contains definitions of key terms, including drug prevalence measures, demographic characteristics, and statistical terms for the 1972 to 1998 surveys. Appendices B, C, and D include additional information on the quality of the data, sample selection, sampling errors, confidence intervals, significance testing, and weighting procedures. Appendix E explains the adjustment procedure that was applied to the 1979-1993 NHSDA estimates in order to facilitate long-term trend analysis. Appendix F contains the answer sheets from the 1998 NHSDA questionnaire. Appendix G contains selected pages from the questionnaire, including demographic and health questions.

The Sample Design

The sample for the 1998 NHSDA was designed so that study results could be used to make inferences about the U.S. civilian, noninstitutionalized population aged 12 years old or older. This 1998 surveyed population was identical to the surveyed population of the 1991 through 1997 NHSDAs, but 1998's differed somewhat from pre-1991 NHSDA populations, which were restricted to the household population in the 48 contiguous States. Alaska and Hawaii were included in the sample for the first time in 1991, as were civilians living on military bases and persons living in noninstitutional group quarters, such as college dormitories, rooming houses, and shelters. Although this change introduced some minor inconsistencies between the samples of the 1991-1998 NHSDAs and pre-1991 NHSDA samples, the impact on trends in drug use estimates is generally inconsequential. Specific details of the sample design and weighting procedures are given in Appendix D.

The 1998 NHSDA employed a stratified, multistage area probability sample that resulted in interviews with 25,500 persons. At the first stage of sample selection, 137 primary sampling units (PSUs) were selected. PSUs are defined as counties (administrative subdivisions of States) or groups of counties, such as metropolitan areas. Within each PSU, area segments (such as city blocks or enumeration districts) were selected. In 1998, 2,670 segments were selected, and in each of these segments a listing of all dwelling units was made, from which a sample of dwelling units was selected. Approximately 76% of the 1998 sample, or 2,030 segments, overlapped with the 1997 survey year to help reduce the sampling variance for trend estimates and to minimize field costs. As did the 1991-1997 NHSDAs, the 1998 sample design used a composite size measure methodology and a specially designed within-dwelling unit selection procedure to meet specified precision constraints for certain subgroups of interest. In 1998, these subgroups of interest included younger individuals (aged 12 to 34), blacks, Hispanics, and residents of Arizona and California.[1]

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[1] In the interest of readability for this report, "white" is used to indicate "white, non-Hispanic" and "black" to indicate "black, non-Hispanic."

To reduce the number of required screenings and to provide for additional analyses relating the responses of persons selected from the same dwelling unit, two selections per household were allowed. In each selected dwelling unit (which can be either households or units within group quarters), a roster recording the age, race/ethnicity, gender, and marital status of all household members 12 years old or older was completed. Two, one, or no household members were selected to be interviewed using a random sampling procedure, with selection probabilities based on the race/ethnicity of the head of household and the ages of each household member.

At the conclusion of data collection for the study, sample weights were constructed that reflect the various stages of sampling described above. The sample weights then were adjusted to account for unit nonresponse (i.e., persons who could not be found at home or who refused to participate). In pre-1991 surveys, the weights were adjusted for nonresponse using a common weighting-class approach. In the 1991 through 1998 surveys, a generalized raking procedure based on constrained logistic and exponential regression modeling was used. This adjustment is an extension of the weighting-class procedure and has the potential for increased bias reduction through the use of a larger number of response predictors. Finally, these weights were poststratified to U.S. Bureau of the Census projections of the number of persons in the U.S. civilian, noninstitutionalized population aged 12 years old or older. The 1993 through 1998 estimates were poststratified using population projections based on the 1990 Census. The final adjusted weight was used in deriving estimates.

1998 Questionnaire

The 1998 NHSDA fielded a questionnaire that essentially replicated the data collection instruments (excluding new modules discussed below) used in the 1997 data collection, which had implemented a revised questionnaire first introduced in 1994. The 1994 questionnaire resulted from a series of methodological studies (e.g., OAS, 1996c) and discussions with consultants. The methodological studies included cognitive evaluations, cognitive laboratory testing, field testing, interviewer debriefings, analyses of missing and inconsistent data, and literature reviews. The 1994 questionnaire incorporated improvements in question wordings (e.g., clearer definitions, less vague terminology, elimination of "hidden" questions) and questionnaire structure (e.g., more use of skip patterns in non-core sections, improved formatting for the benefit of interviewers and respondents). Enhanced instructions regarding the reference periods used (i.e., past 30 days, past 12 months) also were added to the questionnaire, including a reference date calendar to facilitate the respondent's accurate recall of events.

A key feature of the NHSDA questionnaire is a core-supplement structure. A core set of questions that are critical for basic trend measurement of prevalence rates remain in the survey every year and comprise the first part of the questionnaire. Supplemental questions, or modules, that can be revised, dropped or added from year to year comprise the remainder of the questionnaire. The core consists of the initial demographic and health items and the first 12 answer sheets, ending with the sedatives answer sheet (see Appendix F). Supplemental items include the remaining answer sheets and demographic and health questions (see Appendix G). It should be mentioned that some of the supplemental portions of the questionnaire have remained in the survey, relatively unchanged, every year (e.g., insurance, income).

Three of the supplemental modules included in the 1998 NHSDA questionnaire were the

- youth experiences module administered to respondents aged 12 to 17,
- social environment module administered to respondents aged 18 or older, and

- parenting experiences module administered to respondents aged 18 or older who had an adolescent aged 12 to 17 who also was selected for interviewing.

Collectively, these three modules collected data related to risk and protective factors, particularly as applied to studies of the etiology of adolescent drug use (see the questions for Answer Sheets 19, 20, and 21 in Appendix F). The 1998 NHSDA offered an unprecedented opportunity to collect such data in a large, nationally representative sample of adults and adolescents in the same household and in a context where the responses of adults not only can be linked to the responses of their children, but also where the responses of both can in turn be linked with contextual data concerning the neighborhoods in which they live.

Special topics covered in 1998 that also were contained in previous NHSDA questionnaires were access to health care (1994-B[2] to 1997); drug testing in the workplace (1994-B and 1997); need for and experience with treatment for drug or alcohol use (1994-B to 1998); criminal history (1995 to 1998); perceived risk/availability of drugs (1994-B, 1996, and 1997); and cigar use (1997 and 1998).

1998 Field Experience

The data collection method used in the 1998 NHSDA was to conduct in-person interviews with sample persons, incorporating procedures that would be likely to maximize respondents' cooperation and willingness to report honestly about their illicit drug use behavior. Introductory letters were sent to sampled addresses, followed by an interviewer visit. A 5-minute screening procedure involved listing all household members aged 12 or older along with their basic demographic data. Then random sampling procedures were implemented for selection of sample person(s). This selection process was designed to provide the necessary sample sizes for specified population groups by selecting either zero, one, or two persons per household, depending on the composition of the household.

Interviewers were instructed to attempt to conduct interviews in a private place, away from other household members. The interview averaged about an hour and included a combination of interviewer-administered and self-administered questions. With this procedure, the answers to sensitive questions (such as those on illicit drug use) were recorded by the respondent and were not seen or reviewed by the interviewer. After these answer sheets were completed, they were placed by the respondent in an envelope, which was sealed and mailed to the contractor, Research Triangle Institute, with no personal identifying information attached. (For more details, see Appendix B.)

Throughout the course of the study, the respondents' anonymity and the privacy of their responses were protected by separating identifying information from survey responses. Respondents were assured that their identities and responses would be handled in the strictest confidence in accordance with Federal law. The questionnaire itself and the interviewing procedures were designed to enhance the privacy of responses, especially during portions of the interview in which questions of a sensitive nature were posed. Showcards were displayed when questions concerning illicit drug use were asked, and respondents were asked to mark answer sheets to record their responses to questions read aloud by the interviewer. The interviewer did not see the completed answer sheets.

A total of 25,500 completed interviews were obtained between January and December 1998. A completed interview had to contain, at a minimum, data on the recency of the respondent's use of marijuana, cocaine, and alcohol. Strategies for ensuring high rates of participation (described briefly in Appendix B) resulted in unweighted screening and interview response rates for 1998 of 93% and 77.0%, respectively.

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[2] The 1994-B NHSDA differed from previous NHSDAs due to the use of a new version of the NHSDA questionnaire instrument.

Table 1.1 presents the number of people interviewed for the 1998 NHSDA (unweighted *n*) within each age and demographic group.

Table 1.2 presents the estimated number of people in the surveyed population represented by the 25,500 respondents to the 1998 NHSDA for age groups and demographic groups. All the numbers in Table 1.2 are in thousands and should be read by adding three zeros. Thus, Table 1.2 shows that the 3,383 males aged 12 to 17 who were interviewed in 1998 (see Table 1.1) represent approximately 11,608,000 of their counterparts in the U.S. civilian, noninstitutionalized population.

The percentage distributions of the surveyed population by age group and demographic group are presented in Table 1.3. This table shows, for instance, that approximately 74% of the weighted sample was white, 11% was black, 10% was Hispanic, and 4% was from other racial/ethnic groups.

Interpreting the Data

Table Format. Many of the tables in this report present data for the demographic groups shown in Table 1.1. The rate of use of various drugs in the lifetime, the past year, and the past month (also referred to as "current use") is generally shown for the four age groups by gender, race/ethnicity, population density, and region (and for those aged 18 or older, by educational attainment and current employment status). The prevalence rates for the age groups can be compared in terms of these basic demographic variables. Unweighted sample sizes (*n*'s) for these variables are shown in Table 1.1. When other demographic variables are used or when data are presented for specific subpopulations, such as current users, the appropriate unweighted *n* is presented in parentheses. Generally, estimates in the text are rounded to whole numbers; the only exceptions are for estimates that are below 5%.

Most tables in this report do not present estimates of the total numbers of persons using drugs or having other tabulated characteristics. Such population estimates can be readily computed from the tables of this report, however, by multiplying the rate, expressed as a percentage, by the corresponding population base reported in Table 1.2, and dividing by 100. For example, Table 1.2 shows that the estimated number of persons in the surveyed population in 1998 who were aged 26 to 34 and who resided in the West equaled approximately 7,890,000. Table 10.5 shows that the percentage of persons in this subgroup who reported drug use with needles in their lifetime equaled 1.0%. To calculate the estimate, first divide the percentage by 100 and then multiply by the population base. In our example, the estimated number of surveyed population persons in the West aged 26 to 34 who ever used drugs with needles equals .010 x 7,890,000 = 78,900.

Other important notations about tables and table formats are as follows.

- In all tables in Chapters 2 to 13 in which race/ethnicity is used as a variable, the "other" respondents not identified as white, black, or Hispanic were eliminated because the category combines disparate groups with differing patterns of drug use, making it difficult to interpret the data.

- Education and employment status for those aged 12 to 17 were excluded from analyses because most 12 to 17 year olds were in school at the time of the interview; therefore, educational attainment and employment status were not applicable measures for this age group and are noted in the tables as such. In the tables, the totals for those two variables refer to the 18,722 respondents aged 18 or older.

- Estimates of individual rates, percentages, and proportions considered to be unreliable were omitted from all tables and were noted by asterisks (*). Because of the relatively large sample sizes for most population subgroups, low precision usually occurs only for prevalence estimates that are very close to zero or 100% (see Appendix C for further details).

- Very small estimates that round to zero (i.e., are <.05%) and are not already suppressed due to low precision are indicated by an asterisk (*) in table cells.

- Estimates are not available for some survey years because of differences in the survey instruments. These data points are footnoted in the tables and marked with a double hyphen (--).

Statistical Significance. This report presents results of tests of several different types of comparisons for statistical significance. The tables in Chapter 2 on trends in drug use include footnotes indicating whether a change between 1997 and 1998 was statistically significant. Differences in the proportion reporting use of a drug in 1997 and the proportion reporting use of a drug in 1998 were tested using a differences-in-proportions test. Chapters 3 through 13 present results of tests of statistical significance for comparisons between demographic groups for 1998. For these tables in these chapters, differences in levels of drug use between groups were tested for statistical significance using *Z* tests. In Chapters 3 through 13, statistically significant differences between demographic groups are not indicated in the tables, but rather are discussed in the text.

In general, only differences significant at the .05 level are discussed in the text. However, a few substantively large and interesting differences also are discussed, even though these are not statistically significant at the .05 level. A difference between subgroups or between years can fall short of statistical significance even when the rate for one subgroup or year is twice or more the rate for another subgroup or year. This seeming incongruity can occur when the rates for both groups are small, when the sample sizes are small, or both. For example, if the rate of use of one comparison group is 1% and the rate of use of the other is 1.5%, the difference may be statistically insignificant. Although the rate of use of the second group is 50% higher than the rate of use of the first group, the NHSDA sample may not be large enough to reliably demonstrate or detect a difference of this magnitude.

It should be noted that in all chapters of this report, empirical associations between demographic variables and drug use do not imply causal relationships. In particular, except for stratification by age, this report does not attempt to control for potentially confounding variables that might help to account for the observed associations. This point is particularly salient with respect to associations between race/ethnicity and drug use. Race/ethnicity is highly associated with socioeconomic status, educational attainment, geographic location, and many other features of the broader social environment.[3] The tables presented in this report, however, are particularly useful for the purpose of identifying demographic subgroups with relatively high and low levels of drug use, regardless of the underlying causes of drug use.

Sampling and Nonsampling Error. All comparisons, as well as the individual rates themselves, are subject to sampling error that is readily quantified. Sampling error for an individual rate results from asking questions of a sample rather than of everyone in the surveyed population. Sampling theory provides the basis for calculating confidence intervals (CIs) around the estimates and tests of significance in comparing two estimates. The size of the intervals and the tests of significance depend on (a) sample size; (b) the interaction between the sampling procedure used and the distribution of a particular variable in the population (i.e., the appropriate design effect); and (c) the degree of confidence required in the interval estimate, or level of protection against incorrect inferences ("Type 1 error"), required in the test of significance.

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[3] For a demonstration of the extent to which racial/ethnic differences in drug use prevalence may be influenced by differences in other sociodemographic characteristics measured in the NHSDA, see Flewelling, Ennett, Rachal, and Theisen (1993).

Standard errors (SEs) of the estimates and associated confidence intervals are not presented in this report, but tables that contain the standard errors are available from OAS. The recommended approach for computing confidence intervals and statistical comparisons would be to obtain and use these standard error tables. Generalized standard errors for various percentages and sample sizes, however, are provided in Appendix C of this Main Findings report. These generalized standard errors and the formulas in Appendix C provide a means of computing approximate confidence limits for various observed estimates at given effective sample sizes at the typical confidence level of 95% (also see Turner, Lessler, & Gfroerer, 1992).

Nonsampling error, which includes nonresponse, misreporting, and miscoding, cannot be measured as satisfactorily as sampling error. A series of studies on the validity and reliability of general population survey data are reported elsewhere (Turner et al., 1992). The quality control techniques (described in Appendix B) that were used in the NHSDA questionnaire design, field procedures, and data processing are those commonly used to minimize nonsampling error.

Strengths and Limitations of the Household Survey

The NHSDA is the only survey that regularly produces estimates of drug use among members of the U.S. civilian, noninstitutionalized population aged 12 years old or older. The survey is an appropriate vehicle for estimating prevalence rates for different drugs because it reports much drug use that does not ordinarily come to the attention of administrative, medical, or correctional authorities. In-person interviews with a large national probability sample seem to be the best way to estimate drug use in virtually the entire population of the United States.

Although the NHSDA is useful for many purposes, it has certain limitations. First, the data are self-reports of drug use, and their value depends on respondents' truthfulness and memory. Several studies have established the validity of self-report data (e.g., Harrison, Haaga, & Richards, 1993; Turner et al., 1992). The NHSDA procedures encourage honesty and recall; nevertheless, some under- and overreporting were very likely. Second, the survey is cross-sectional rather than longitudinal; that is, individuals were interviewed only once and were not followed for subsequent interviews. Therefore, the surveys provide an overview of the prevalence of drug use at specific points in time, rather than a view of how the drug use behavior of individuals changes over time. Third, because the survey population is defined as the U.S. civilian, noninstitutionalized population, a small proportion (less than 2%) is excluded: those living in institutional group quarters (e.g., prisons, nursing homes, treatment centers), homeless people who never use shelters, and active-duty military personnel (Bray & Marsden, 1999; Bray, Marsden, & Peterson, 1991; Gerstein & Harwood, 1992; NIDA, 1994). If the drug use of these groups differs from that of the household population, the NHSDA may provide slightly inaccurate estimates of drug use in the total population. This may be particularly true for prevalence estimates of rarely used drugs, such as heroin.

Table 1.1 **Number of People Interviewed (Unweighted *n*), by Age Group and Demographic Characteristics: 1998**

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**6,778**	**7,318**	**4,537**	**6,867**	**25,500**
Gender					
Male	3,383	3,275	1,864	2,739	**11,261**
Female	3,395	4,043	2,673	4,128	**14,239**
Race/Ethnicity					
White, non-Hispanic	3,091	2,926	1,890	3,802	**11,709**
Black, non-Hispanic	1,374	1,798	1,053	1,590	**5,815**
Hispanic	1,869	2,187	1,432	1,307	**6,795**
Other, non-Hispanic	444	407	162	168	**1,181**
Population Density					
Large metro	3,400	3,826	2,440	3,320	**12,986**
Small metro	1,944	2,229	1,333	2,124	**7,630**
Nonmetro	1,434	1,263	764	1,423	**4,884**
Region					
Northeast	709	739	673	1,000	**3,121**
North Central	872	930	754	1,124	**3,680**
South	1,997	2,298	1,633	2,576	**8,504**
West	3,200	3,351	1,477	2,167	**10,195**
Adult Education[1]					
Less than high school	N/A	1,929	983	1,736	**4,648**
High school graduate	N/A	2,645	1,498	2,148	**6,291**
Some college	N/A	2,170	1,145	1,484	**4,799**
College graduate	N/A	574	911	1,499	**2,984**
Current Employment[2]					
Full-time	N/A	3,318	3,099	3,557	**9,974**
Part-time	N/A	1,443	428	649	**2,520**
Unemployed	N/A	703	257	239	**1,199**
Other[3]	N/A	1,854	753	2,422	**5,029**

N/A Not applicable

[1] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[2] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 1.2 Estimated Number of People (in Thousands) in the U.S. Civilian, Noninstitutionalized Population, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**22,740**	**27,966**	**34,603**	**133,136**	**218,445**
Gender					
Male	11,608	14,127	17,169	62,293	**105,198**
Female	11,132	13,839	17,434	70,842	**113,247**
Race/Ethnicity					
White, non-Hispanic	15,209	18,753	23,786	104,243	**161,991**
Black, non-Hispanic	3,243	3,927	4,360	13,245	**24,775**
Hispanic	3,108	3,910	4,672	10,652	**22,342**
Other, non-Hispanic	1,180	1,376	1,784	4,995	**9,336**
Population Density					
Large metro	9,546	11,018	16,429	57,064	**94,058**
Small metro	7,997	11,269	11,479	45,966	**76,711**
Nonmetro	5,198	5,679	6,695	30,105	**47,676**
Region					
Northeast	4,061	4,942	6,733	26,619	**42,355**
North Central	5,428	6,630	7,836	31,247	**51,140**
South	8,042	10,051	12,144	47,092	**77,329**
West	5,210	6,343	7,890	28,178	**47,620**
Adult Education[1]					
Less than high school	N/A	5,441	4,376	23,927	**33,745**
High school graduate	N/A	9,919	10,997	43,913	**64,829**
Some college	N/A	9,769	9,389	29,718	**48,877**
College graduate	N/A	2,836	9,840	35,578	**48,254**
Current Employment[2]					
Full-time	N/A	13,411	25,207	66,415	**105,033**
Part-time	N/A	5,942	3,102	13,196	**22,239**
Unemployed	N/A	1,970	1,467	3,687	**7,125**
Other[3]	N/A	6,643	4,827	49,837	**61,307**

N/A: Not applicable.

[1] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[2] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 1.3 Estimated Percentage of the U.S. Civilian, Noninstitutionalized Population, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total (Row Percents)	**10.4**	**12.8**	**15.8**	**60.9**	**100.0**
Gender					
Male	51.0	50.5	49.6	46.8	**48.2**
Female	49.0	49.5	50.4	53.2	**51.8**
Total	100.0	100.0	100.0	100.0	**100.0**
Race/Ethnicity					
White, non-Hispanic	66.9	67.1	68.7	78.3	**74.2**
Black, non-Hispanic	14.3	14.0	12.6	9.9	**11.3**
Hispanic	13.7	14.0	13.5	8.0	**10.2**
Other, non-Hispanic	5.2	4.9	5.2	3.8	**4.3**
Total	100.0	100.0	100.0	100.0	**100.0**
Population Density					
Large metro	42.0	39.4	47.5	42.9	**43.1**
Small metro	35.2	40.3	33.2	34.5	**35.1**
Nonmetro	22.9	20.3	19.3	22.6	**21.8**
Total	100.0	100.0	100.0	100.0	**100.0**
Region					
Northeast	17.9	17.7	19.5	20.0	**19.4**
North Central	23.9	23.7	22.6	23.5	**23.4**
South	35.4	35.9	35.1	35.4	**35.4**
West	22.9	22.7	22.8	21.2	**21.8**
Total	100.0	100.0	100.0	100.0	**100.0**
Adult Education[1]					
Less than high school	N/A	19.5	12.6	18.0	**17.2**
High school graduate	N/A	35.5	31.8	33.0	**33.1**
Some college	N/A	34.9	27.1	22.3	**25.0**
College graduate	N/A	10.1	28.4	26.7	**24.7**
Total		100.0	100.0	100.0	**100.0**
Current Employment[2]					
Full-time	N/A	48.0	72.8	49.9	**53.7**
Part-time	N/A	21.2	9.0	9.9	**11.4**
Unemployed	N/A	7.0	4.2	2.8	**3.6**
Other[3]	N/A	23.8	13.9	37.4	**31.3**
Total		100.0	100.0	100.0	**100.0**

Note: Column percentages for each characteristic may not total 100.0% because of rounding.

N/A: Not applicable.

[1] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[2] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Chapter 2: Trends in Drug Use, 1979 to 1998

Introduction

The National Household Survey on Drug Abuse (NHSDA) monitors the prevalence, correlates, and trends in use of illicit drugs, alcohol, and tobacco. The 1998 NHSDA is the 18th in this series conducted since 1972. Because similar data have been collected in previous administrations of the NHSDA, it is possible to examine how prevalence rates for specific types of drug use have changed between prior years of the survey and the most recent year, 1998. Comparing the 1998 estimates with those produced in previous years is helpful for interpreting the current magnitude of drug use in the United States within an historical context and for identifying noteworthy trends based on the more recent years of data.

For the entire surveyed population, the estimated rates of use of specific illicit drugs, alcohol, and tobacco in the lifetime, past year, and past month did not change appreciably from 1997 to 1998 and, in general, were relatively stable from 1991 to 1998. Rates of substance use were generally much higher in the late 1970s and early 1980s than they were in 1998.

In contrast to increases in illicit drug use among youths aged 12 to 17 that began about 1993, any illicit drug use among youths decreased between 1997 and 1998. In 1996 (OAS, 1998a), there was a statistically significant decrease in any past month illicit drug use among youths (from 10.9% in 1995 to 9.0% in 1996). In 1997, however, the rate jumped to 11.4%, the highest it had been since 1985. This increase was driven in large part by the significantly higher rate of past month use of marijuana in 1997 compared with 1996. Any alcohol use, heavy alcohol use (defined in Table 2.4), and cigarette use in the past month among youths were relatively stable between 1997 and 1998, while past year cigarette use decreased significantly. Decreases between 1997 and 1998 in any illicit drug use among youths aged 12 to 17 were consistent with decreases in any illicit drug use among 8th, 10th, and 12th graders found in the Monitoring the Future Study between 1997 and 1998. However, the latter study also found a decrease in alcohol use among youths in those grades between 1997 and 1998 (Johnston, O'Malley, & Bachman, 1998, 1999).

This chapter presents for the total U.S. population aged 12 or older estimates of the lifetime, past year, and past month prevalence of use of 17 types of illicit drugs, alcohol, and tobacco, as measured by the 1998 NHSDA. These 1998 results then are compared with the rates of use from 1979 through 1997.[1] Next, the rates of lifetime, past year, and past month use of any illicit drug, marijuana, cocaine, alcohol, and cigarettes are presented for NHSDAs conducted from 1979 through 1998 for each of four age groups. Finally, the lifetime, past year, and past month rates of use in 1997 and in 1998 are presented for all 17 of the types of substances for each of the four age groups.

Comparing Prevalence of Use Across NHSDA Years

In the 1994 NHSDA, new instrumentation for measuring drug use was introduced, and that instrumentation has been in use since 1994. These changes were implemented to improve the validity of the drug prevalence estimates, but they also precluded being able to make direct comparisons with estimates published in 1993 and earlier years. Therefore, a subsample of respondents was administered the old instrumentation during the 1994 NHSDA to provide a means for assessing the magnitude of the difference in measures of drug use produced by the two different instruments. Then measures of drug use for 1993 and earlier were adjusted, using these two sets of measures available in the 1994 NHSDA, so that all measures of drug use from the NHSDAs since 1979 would be directly comparable to those generated in 1994 and later with the new instrumentation. As a result, *all 1979 to 1993 estimates shown in this chapter may be different from NHSDA estimates for those years published in 1993 or earlier.*

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[1] Estimates from all years of the NHSDA since 1979 are included in these tables with the exception of 1982, 1988, and 1990, which were excluded to allow adequate space for the addition of 1998 data.

A second important consideration to keep in mind while assessing the trend data presented in this chapter is that the NHSDA is based on a different sample of respondents each year. The survey is not designed to track changes in drug use behavior of individuals over time, but rather to measure the prevalence of drug use in a target population at a specific point in time. Estimates from different years can be compared to assess changes in the prevalence of drug use in the household population of the United States. Because a new sample is drawn each year, small fluctuations in the prevalence estimates across years are expected due to random sampling error. The tables presented in this chapter indicate when the differences in the estimates between 1998 and previous years are greater than would be expected as a result of sample differences.

Not only is a new sample drawn each year, but it is also important to recognize that the actual membership of the target population changes from each year to the next. For example, the household population aged 12 or older in 1998 includes 12 year olds who were not in the 1997 target population. Although the changes from year to year in the total household population membership are relatively small, the changes in membership for specific age groups are more pronounced. Indeed, the target population aged 12 to 17 in 1998 included none of the youths who were in that age group in 1992. Thus, it is important to bear in mind that noteworthy differences in the prevalence of drug use across years may be due to the fact that membership of the target populations has changed, rather than (or in addition to) changes in the behaviors of individuals within a target population. This is especially true for the population subgroups defined by age.

Prevalence of Drug Use in 1998 (Table 2.1)

Table 2.1 provides an overview of estimates of the numbers and percentages of the surveyed population aged 12 or older who, according to the NHSDA in 1998, used each of 17 categories of drugs within three time periods: *lifetime* (i.e., if the substance had ever been used), *past year* (if use occurred during the 12 months preceding the interview date, a period that usually includes some time during calendar 1997), and *past month* (if the substance was used during the 30 days preceding the interview date, also referred to in this report as "current" use).

Based on the 1998 NHSDA, more than one-third (36%) of the population was estimated to have used some illicit drug during their lifetime, about one-tenth (11%) used an illicit drug in the past year, and one-seventeenth (6%) were current users. Expressed in population counts, about 78 million persons had ever used at least one illicit drug, 23 million had done so during the past year, and almost 14 million had used an illicit drug within the past 30 days. For many users of illicit drugs, the only illicit drug used was marijuana. When marijuana is excluded from the list of illicit drugs, the population counts of lifetime, past year, and past month users are cut approximately in half.

About 72 million persons had ever used marijuana, reflecting its status as the most commonly used illicit drug; it had been used in the past year by almost 19 million persons and in the past month by more than 11 million persons. The second most commonly used illicit drug was cocaine, with 23 million lifetime users, almost 4 million of whom had used cocaine in the past year and 1.8 million in the past month. After marijuana and cocaine, the next most commonly reported illicit drug categories were psychotherapeutic (i.e., prescription) drugs used nonmedically and hallucinogens, each of which was used in the lifetime by approximately 20 million persons. More than 12 million were estimated to have ever used inhalants, and more than 2 million persons had used heroin in their lifetime. Estimates of heroin use from the NHSDA are considered to be very conservative because of probable underreporting and undercoverage of the population of heroin users.

Almost 81% of the population (more than 177 million persons) was estimated to have had a drink of alcohol at least once (a drink was defined as 12 ounces of beer, 4 ounces of wine, or a shot of hard liquor). Nearly as many persons, more than 152 million (almost 70%), had ever tried at least a puff or two from a cigarette at least once in their lifetime. In the past month, about half (52%) of the population aged 12 or older drank alcohol, while about 28% had at least a puff or two from at least one cigarette; these percentages represent 113 million current drinkers and 60 million current cigarette smokers. Almost 38 million persons were estimated to have used smokeless tobacco at least once, including nearly 7 million who reported that they had used this form of tobacco during the month before being interviewed.

Trends in Drug Use Among the Household Population Aged 12 or Older (Tables 2.2 to 2.4)

Trends in use between 1979 and 1998 of the 17 categories of use of illicit drugs, alcohol, and tobacco are presented in Tables 2.2 to 2.4 for lifetime use (Table 2.2), past year use (Table 2.3), and past month use (Table 2.4).

Any Illicit Drug Use. Lifetime use of any illicit drugs increased between 1979 and 1998 for the total population aged 12 or older, from 31% to 36%, while past year and past month use decreased over the time period. Small increases in the rates of lifetime use are expected from year to year as the number of persons who have ever used drugs increases. The rate of any illicit drug use in the past month in 1998 was less than half that in 1979, 6% compared with 14%. Although there was a long-term decrease in past year and past month rates between 1979 and 1998, only the comparisons of 1998 rates to 1979 and 1985 rates showed a statistically significant decrease. Past year and past month rates were relatively stable between 1991 and 1998. Lifetime, past year, and past month rates of use were stable between 1997 and 1998 for the total population.

Marijuana and Hashish Use. Trends for marijuana/hashish use for the total household population were similar to those for any illicit drug use. Lifetime use of marijuana or hashish increased between 1979 and 1998, while past year and past month use decreased. Rates of past year and past month use in 1998 were half or less those in 1979. Differences between 1998 rates of use in the lifetime, past year, and past month and those in 1979 and 1985 were statistically significant. Rates of lifetime, past year, and past month use were relatively stable between 1991 and 1998, and there were no significant differences between 1997 and 1998 for the total population.

Cocaine Use. Lifetime use of cocaine for the total population also increased between 1979 and 1998, from 9% to 11%, and there were significant decreases in past year and past month cocaine use between 1979 and 1985 and 1998. Rates of cocaine use in the lifetime, past year, and past month were generally stable between 1991 and 1998. Past year cocaine use decreased between 1991 and 1998, but no differences were observed from 1992 to 1997 and 1998. Past year and past month rates of cocaine use were highest in 1985 compared with most other drugs, which peaked in 1979. Lifetime, past year, and past month crack cocaine use also were relatively stable between 1991 and 1998. No data were available for 1979 and 1985 regarding crack cocaine use.

Other Illicit Drug Use. Lifetime use of inhalants for the total population decreased from 1985 (8%) to 1998 (6%), while past year and past month rates of use were relatively stable over the time period at about 1% and 0.3% to 0.6%, respectively. Lifetime use of hallucinogens increased during the time period, with rates in 1998 significantly higher than rates in 1985, 1991, 1992, and 1994. Past year and past month hallucinogen use decreased between 1979 and 1998. Lifetime, past year, and past month rates of heroin use also were relatively stable between 1979 and 1998; although there were some significant differences between 1998 and earlier years, they were small. Lifetime and past year nonmedical use of any psychotherapeutic drug decreased between 1985 and 1998, as did lifetime and past year use of stimulants, sedatives, tranquilizers, and analgesics. Past month use of any psychotherapeutic drug, stimulants, and tranquilizers were lower in 1998 than in 1985.

Lifetime, past year, and past month rates of use of any illicit drug other than marijuana were lower in 1998 than in 1985, partly a reflection of the trends for psychotherapeutic drugs. No significant differences in past month use of inhalants, hallucinogens, heroin, or nonmedical use of psychotherapeutic drugs were found between 1997 and 1998 for the total population.

Alcohol Use. Lifetime, past year, and past month rates of any alcohol use among the total population also decreased between 1979 and 1998. For example, 63% used alcohol in the past month in 1979 compared with 52% in 1998. Rates of alcohol use were relatively stable between 1991 and 1998. "Binge" alcohol use and heavy alcohol use (defined in Table 2.4) also decreased between 1985 and 1998, but no significant differences were found between 1997 and 1998. In 1998, 16% of the total population were "binge" drinkers, and 6% were heavy drinkers.

Tobacco Use. Lifetime, past year, and past month cigarette use decreased significantly between 1985 and 1998, and there also were significant decreases in past year and past month use between 1997 and 1998 for the total population. Lifetime smokeless tobacco use was stable among members of the total population at about 17% between 1991 and 1998, while past year use was stable at 4% or 5% and past month use was stable at about 3%.

Trends by Age Group for the Most Commonly Used Substances (Tables 2.5 to 2.8)

Trends in use of illicit drugs, alcohol, and tobacco found for the total population aged 12 or older were somewhat different among the age groups, as shown in Tables 2.5 to 2.8 for lifetime use (Table 2.5), past year use (Table 2.6), and past month use (Tables 2.7 and 2.8) of selected drugs.

Any Illicit Drug Use. Although lifetime rates of any illicit drug use increased for the total population aged 12 or older between 1979 and 1998, this finding was not consistent for specific age groups. Lifetime rates increased between 1979 and 1998 for those aged 35 or older and between 1985 and 1998 for those aged 26 or older. However, for younger age groups, lifetime use decreased over the time period. Among youths aged 12 to 17, for example, 32% had ever used illicit drugs in 1979 compared with 21% in 1998. As more people begin to use illicit drugs, the proportion of the population who have ever used drugs would be expected to increase gradually. Significant decreases in lifetime rates of use would be expected to occur only occasionally. The decrease in lifetime use among youths may thus mark a major change in drug use among youths. Past year and past month rates among the total population and adult age groups decreased over the time period but were relatively stable during the 1990s except for decreases in use among those aged 26 to 34. In contrast, past year and past month use among youths increased during the 1990s to 1997, but significant decreases were observed between 1997 and 1998. Past month use among youths in 1998 (10%), however, remained smaller than in 1979 (16%).

Marijuana and Hashish Use. Lifetime use of marijuana or hashish also increased for the total population between 1979 and 1998, but was relatively stable during the 1990s, while past year and past month use decreased over the time period. Between 1979 and 1998, lifetime use increased substantially for those aged 35 or older, decreased for those aged 25 or younger, and was relatively stable for those aged 26 to 34. Past year and past month rates of use decreased between 1979 and 1998 for those aged 12 to 34, but were relatively stable for those aged 35 or older. No differences in past year or past month marijuana use were found for any of the age groups between 1997 and 1998.

Cocaine Use. Lifetime use of cocaine decreased for those aged 25 or younger between 1979 and 1998 but increased for those aged 26 or older. Past year cocaine use decreased for those aged 12 to 34 between 1979 and 1998, while use was relatively stable among those aged 35 or older. Past month use decreased for those aged 18 to 34, while use was relatively stable among youths and older adults. Between 1997 and 1998, past month cocaine use increased among those aged 18 to 25, but past month use was relatively stable among all age groups during the 1990s.

Alcohol Use. Use of any alcohol in the lifetime, past year, or past month generally decreased between 1979 and 1998, although not all of the decreases were large or statistically significant. Lifetime alcohol use was relatively stable across the time period for those aged 35 or older. Between 1997 and 1998, no significant differences in past year or past month alcohol use were found for any of the age groups.

"Binge" alcohol use decreased for the total population between 1985 and 1998, but only the decreases for youths aged 12 to 17 were statistically significant; among youths, almost 22% were binge drinkers in 1985 compared with 8% in 1998. Heavy alcohol use was relatively stable for all age groups between 1985 and 1998. Binge alcohol use and heavy alcohol use increased significantly between 1997 and 1998 for young adults aged 18 to 25.

Cigarette Use. Lifetime, past year, and past month use of cigarettes decreased between 1985 and 1998, although the decreases were not significant for all age groups. Significant decreases in past year and past month use were found for all age groups between 1985 and 1998 except young adults aged 18 to 25. Between 1997 and 1998, past year cigarette use decreased among youths aged 12 to 17, and past year and past month use decreased among those aged 35 or older.

Detailed Analysis of Differences in Drug Use Between 1997 and 1998 (Tables 2.9 to 2.11)

Estimates of lifetime, past year, and past month use in 1997 and in 1998 of all 17 of the NHSDA types of substances are presented in Tables 2.9 to 2.11 for each of the four age groups. Age-specific rates of use for any illicit drug, marijuana, cocaine, alcohol, and cigarettes shown in Tables 2.5 to 2.8 for the years 1997 and 1998 are repeated here, and prevalence of use of the less commonly used illicit substances is included.

Any Illicit Drug Use. Although lifetime, past year, and past month rates of any illicit drug use were stable between 1997 and 1998 for the total population aged 12 or older, there were significant decreases for youths aged 12 to 17. For example, more than 11% of youths used any illicit drug in the past month in 1997 compared with 10% in 1998.

Marijuana or Hashish Use. Although rates of marijuana use in the lifetime, past year, and past month were stable for the total population between 1997 and 1998, lifetime rates of use decreased among youths. Lifetime, past year, and past month rates of marijuana use were stable for the other age groups.

Cocaine Use. Few differences in cocaine or crack use were seen for specific age groups between 1997 and 1998. Lifetime use of cocaine and crack decreased among youths; past year crack use decreased among youths; and past month cocaine use increased among young adults aged 18 to 25.

Other Illicit Drug Use. Among youths, past year and past month inhalant use and past year psychotherapeutic use decreased between 1997 and 1998. Lifetime, past year, and past month use of any illicit drug other than marijuana also decreased among youths between 1997 and 1998. Among young adults aged 18 to 25, lifetime hallucinogen use increased. No significant differences in use of other illicit drugs was found for those aged 26 or older.

Alcohol Use. No significant differences in any alcohol use were found for any of the age groups between 1997 and 1998, although "binge" drinking and heavy alcohol use increased among young adults aged 18 to 25.

Tobacco Use. Lifetime and past year use of cigarettes decreased among youths aged 12 to 17 between 1997 and 1998, while past month use decreased among those aged 35 or older. Lifetime, past year, and past month rates of smokeless tobacco use were stable except for a decrease in past month use among youths aged 12 to 17.

Discussion

In 1998, 36% of the total household population had used an illicit drug in their lifetime, 11% had used an illicit drug in the past year, and 6% were current users. Lifetime use of any illicit drug, marijuana, and cocaine increased for the total population between 1979 and 1998, while lifetime use of psychotherapeutic drugs decreased since 1985. Past year and past month rates of use decreased between 1979 and 1998 for the total population for most illicit drugs, but were relatively stable between 1991 and 1998. Lifetime, past year, and past month use of alcohol and cigarettes decreased between 1979 and 1998, while use of smokeless tobacco was relatively stable. In contrast to increases in lifetime prevalence for most drugs between 1979 or 1985 and 1998 for the total population, lifetime prevalence of any illicit drug, marijuana, cocaine, and alcohol decreased among youths aged 12 to 17. Past year and past month use of these substances also decreased among youths between 1979 and 1998.

Comparing 1997 and 1998, there were few statistically significant differences in the rates of use in the lifetime, past year, or past month among the total household population for any of the 17 substances. Lifetime rates were stable for all substances for the total household population between the two years, while past year heroin use and cigarette use were lower in 1998 than in 1997, and past month cigarette use was lower in 1998 than 1997. However, there were decreases in lifetime, past year, and past month use of any illicit drug between 1997 and 1998 for youths aged 12 to 17. These decreases contrasted with increases in drug use among youths during the earlier part of the 1990s. These up and down patterns suggest the importance of reviewing trends over a longer period of time in order to assess underlying and more general features of societal trends in substance abuse.

In this chapter, comparisons have been noted between the 1997 and 1998 surveys, but considerable attention also has been focused on trends since 1991. This approach helped lead to the conclusion that for the total population, the prevalence of use of illicit drugs, alcohol, and cigarettes remained fairly stable during the 1990s. However, there were several statistically significant differences by age group. For example, during the 1990s, past month rates of any illicit drug use or marijuana use increased among youths aged 12 to 17, were relatively stable among those aged 18 to 25 or 35 or older, but decreased among those aged 26 to 34. Compared with the late 1970s and early 1980s, there has been a long-term decline in past month use of most drugs for the three younger age groups, while rates of use have been relatively stable among those aged 35 or older.

Another significant finding noted in this chapter was the generally increasing rates of lifetime use of illicit drugs among older adults. This finding reflects the aging of a cohort that used drugs at particularly high rates in the late 1970s and early 1980s and portends a continuing gradual increase in lifetime use among older adults in coming years. Conversely, the data also reflected lower rates of lifetime use among middle adults, for the same reason that increasing rates among the older adults were observed. These patterns help to elucidate the long-term impacts of cohort effects on lifetime use estimates, particularly for specific age groupings. Rates of past year and past month use are not influenced in this way by previous surges in use and thus provide more useful measures for assessing current drug use levels and comparing levels of drug use across age groups.

Table 2.1 Percentage and Estimated Number of Users (in Thousands) of Illicit Drugs, Alcohol, and Tobacco in the U.S. Civilian, Noninstitutionalized Population Aged 12 or Older in Their Lifetime, the Past Year, and the Past Month: 1998

	Time Period					
	Lifetime		Past Year		Past Month	
Drug	%	Number of Users (in 1,000s)	%	Number of Users (in 1,000s)	%	Number of Users (in 1,000s)
Any Illicit Drug Use[1]	35.8	78,123	10.6	23,115	6.2	13,615
Marijuana/hashish	33.0	72,070	8.6	18,710	5.0	11,016
Cocaine	10.6	23,089	1.7	3,811	0.8	1,750
Crack	2.0	4,476	0.4	971	0.2	437
Inhalants	5.8	12,589	0.9	2,009	0.3	713
Hallucinogens	9.9	21,607	1.6	3,565	0.7	1,514
PCP	3.5	7,640	0.2	346	*	*
Heroin	1.1	2,371	0.1	253	0.1	130
Nonmedical use of any psychotherapeutic[2]	9.2	20,193	2.6	5,759	1.1	2,477
Stimulants	4.4	9,614	0.7	1,489	0.3	633
Sedatives	2.1	4,640	0.2	522	0.1	210
Tranquilizers	3.5	7,726	0.9	1,940	0.3	655
Analgesics	5.3	11,595	1.9	4,070	0.8	1,709
Any illicit drug other than marijuana[1]	18.9	41,337	4.9	10,788	2.5	5,388
Alcohol	81.3	177,512	64.0	139,807	51.7	112,850
Cigarettes	69.7	152,313	30.6	66,735	27.7	60,406
Smokeless Tobacco	17.2	37,667	4.4	9,582	3.1	6,730

Note: Due to improved survey procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

*Low precision; no estimate or number reported.

[1] Any illicit drug indicates use at least once of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP] and lysergic acid diethylamide [LSD]), heroin, or any prescription-type psychotherapeutic used nonmedically. Any illicit drug other than marijuana indicates use at least once of any of these listed drugs, regardless of marijuana use; marijuana users who also have used any of the other listed drugs are included.

[2] Nonmedical use of any prescription-type stimulant, sedative, tranquilizer, or analgesic; does not include over-the-counter drugs.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 2.2 Trends in Percentage of Respondents Aged 12 or Older Reporting Drug Use in Their Lifetime: 1979-1998

Drug (Unweighted *n*)	1979 (7,224)	1985 (8,021)	1991 (32,594)	1992 (28,832)	1993 (26,489)	1994 (17,809)	1995 (17,747)	1996 (18,269)	1997 (24,505)	1998 (25,500)
Any Illicit Drug Use[1]	31.3[b]	34.4	34.1	33.3	34.2	34.4	34.2	34.8	35.6	35.8
Marijuana/hashish	27.9[b]	29.4[a]	30.5	30.2	31.0	31.1[a]	31.0[a]	32.0	32.9	33.0
Cocaine	8.6[a]	11.2	11.5	10.9	11.3	10.4	10.3	10.3	10.5	10.6
Crack	--	--	2.1	1.5[b]	1.9	1.9	1.8	2.2	1.9	2.0
Inhalants	--	7.9[b]	6.1	5.3	5.9	5.8	5.7	5.6	5.7	5.8
Hallucinogens	8.9	6.9[b]	8.4[a]	8.3[a]	9.0	8.7[a]	9.5	9.7	9.6	9.9
Heroin	1.3	0.9	1.2	0.8	1.0	1.0	1.2	1.1	0.9	1.1
Nonmedical use of any psychotherapeutic[2]	--	15.3[b]	11.9[b]	11.0	10.5	10.0	10.1	9.5	9.1	9.2
Stimulants	--	7.3[b]	5.6[a]	5.0	4.8	4.6	4.9	4.7	4.5	4.4
Sedatives	--	4.8[b]	3.2[b]	2.6	2.6	2.6	2.7	2.3	1.9	2.1
Tranquilizers	--	7.6[b]	5.1[b]	4.7[a]	4.2	4.0	3.9	3.6	3.2	3.5
Analgesics	--	7.6[b]	6.8[a]	6.1	6.4	6.0	6.1	5.5	4.9	5.3
Any illicit drug other than marijuana[1]	--	22.4[b]	19.8	18.9	19.7	18.8	19.1	18.9	18.9	18.9
Alcohol	88.5[a]	84.9	83.6	81.9	82.6	84.2[b]	82.3	82.6	81.9	81.3
Cigarettes	--	78.0[b]	74.9	73.1	73.3	73.3[b]	71.8[a]	71.6[a]	70.5	69.7
Smokeless Tobacco	--	--	17.5	18.2	15.9	17.2	17.0	17.0	17.3	17.2

Note: Estimates here for 1979 through 1993 may differ from estimates for these survey years that were published in other NHSDA reports. The estimates shown here for 1979 through 1993 have been adjusted to improve their comparability with estimates based on the new version of the NHSDA instrument that was fielded in 1994 and subsequent NHSDAs. See Appendix E for further discussion of adjustment procedures.

--Estimate not available.

[a] Difference between this estimate and 1998 estimate is statistically significant at the .05 level.

[b] Difference between this estimate and 1998 estimate is statistically significant at the .01 level.

[1] Any illicit drug indicates use at least once of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP] and lysergic acid diethylamide [LSD]), heroin, or any prescription-type psychotherapeutic used nonmedically. Any illicit drug other than marijuana indicates use at least once of any of these listed drugs, regardless of marijuana use; marijuana users who also have used any of the other listed drugs are included.

[2] Nonmedical use of any prescription-type stimulant, sedative, tranquilizer, or analgesic; does not include over-the-counter drugs.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1979-1998.

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Table 2.3 Trends in Percentage of Respondents Aged 12 or Older Reporting Drug Use in the Past Year: 1979-1998

Drug (Unweighted *n*)	1979 (7,224)	1985 (8,021)	1991 (32,594)	1992 (28,832)	1993 (26,489)	1994 (17,809)	1995 (17,747)	1996 (18,269)	1997 (24,505)	1998 (25,500)
Any Illicit Drug Use[1]	17.5[b]	16.3[b]	11.1	9.7	10.3	10.8	10.7	10.8	11.2	10.6
Marijuana/hashish	16.6[b]	13.6[b]	8.9	7.9	8.5	8.5	8.4	8.6	9.0	8.6
Cocaine	4.8[b]	5.1[b]	2.6[b]	2.1	1.9	1.7	1.7	1.9	1.9	1.7
Crack	--	--	0.7	0.6	0.7	0.6	0.5	0.6[a]	0.6	0.4
Inhalants	--	1.4	1.2	0.9	0.9	1.1	1.1	1.1	1.1	0.9
Hallucinogens	2.9[b]	1.7	1.3	1.2	1.2	1.3[a]	1.6	1.7	1.9	1.6
Heroin	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2[a]	0.3[a]	0.1
Nonmedical use of any psychotherapeutic[2]	--	6.2[b]	3.6[a]	3.0	3.1	2.9	2.9	3.1	2.8	2.6
Stimulants	--	2.9[b]	1.0	0.7	0.9	0.7	0.8	0.9	0.8	0.7
Sedatives	--	1.1[b]	0.5	0.4	0.3	0.4	0.3	0.3	0.3	0.2
Tranquilizers	--	3.2[b]	1.5[a]	1.4	1.1	1.1	1.0	1.1	1.0	0.9
Analgesics	--	3.6[b]	2.5	2.4	2.2	2.0	1.9	2.1	1.9	1.9
Any illicit drug other than marijuana[1]	--	9.7[b]	6.2[a]	5.3	5.3	5.3	5.4	5.4	5.5	4.9
Alcohol	72.9[b]	72.9[b]	68.1	64.7	66.5	66.9[a]	65.4	64.9	64.1	64.0
Cigarettes	--	40.5[b]	36.2[b]	35.2[a]	33.2	31.7	32.0	32.3	32.7[a]	30.6
Smokeless Tobacco	--	--	5.3	5.5	4.4	4.8	4.6	4.7	4.7	4.4

Note: Estimates here for 1979 through 1993 may differ from estimates for these survey years that were published in other NHSDA reports. The estimates shown here for 1979 through 1993 have been adjusted to improve their comparability with estimates based on the new version of the NHSDA instrument that was fielded in 1994 and subsequent NHSDAs. See Appendix E for further discussion of adjustment procedures.

-- Estimate not available.

[a] Difference between this estimate and 1998 estimate is statistically significant at the .05 level.

[b] Difference between this estimate and 1998 estimate is statistically significant at the .01 level.

[1] Any illicit drug indicates use at least once of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP] and lysergic acid diethylamide [LSD]), heroin, or any prescription-type psychotherapeutic used nonmedically. Any illicit drug other than marijuana indicates use at least once of any of these listed drugs, regardless of marijuana use; marijuana users who also have used any of the other listed drugs are included.

[2] Nonmedical use of any prescription-type stimulant, sedative, tranquilizer, or analgesic; does not include over-the-counter drugs.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1979-1998.

Table 2.4 Trends in Percentage of Respondents Aged 12 or Older Reporting Drug Use in the Past Month: 1979-1998

Drug (Unweighted *n*)	1979 (7,224)	1985 (8,021)	1991 (32,594)	1992 (28,832)	1993 (26,489)	1994 (17,809)	1995 (17,747)	1996 (18,269)	1997 (24,505)	1998 (25,500)
Any Illicit Drug Use[1]	14.1[b]	12.1[b]	6.6	5.8	5.9	6.0	6.1	6.1	6.4	6.2
Marijuana/hashish	13.2[b]	9.7[b]	5.1	4.7	4.6	4.8	4.7	4.7	5.1	5.0
Cocaine	2.6[b]	3.0[b]	1.0	0.7	0.7	0.7	0.7	0.8	0.7	0.8
Crack	--	--	0.3	0.2	0.3	0.2	0.2	0.3[a]	0.3	0.2
Inhalants	--	0.6	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.3
Hallucinogens	1.9[a]	1.2	0.5	0.4[a]	0.4[a]	0.5[a]	0.7	0.6	0.8	0.7
Heroin	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1
Nonmedical use of any psychotherapeutic[2]	--	3.8[b]	1.9[a]	1.5	1.5	1.2	1.2	1.4	1.2	1.1
Stimulants	--	1.8[b]	0.4	0.3	0.5	0.3	0.4	0.4	0.3	0.3
Sedatives	--	0.5	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1
Tranquilizers	--	2.2[b]	1.1[a]	0.8[a]	0.6	0.5	0.4	0.4	0.4	0.3
Analgesics	--	1.4	0.8	0.9	0.8	0.7	0.6	0.9	0.7	0.8
Any illicit drug other than marijuana[1]	--	6.1[b]	3.0	2.4	2.4	2.3	2.6	2.7	2.6	2.5
Alcohol	63.2[b]	60.2[b]	52.2	49.0	50.8	53.9	52.2	51.0	51.4	51.7
"Binge" alcohol use[3]	--	20.2[b]	15.5	14.5	14.6	16.5	15.8	15.5	15.3	15.6
Heavy alcohol use[3]	--	8.3[a]	6.8	6.2	6.7	6.2	5.5	5.4	5.4	5.9
Cigarettes	--	38.7[b]	33.0[b]	31.9[a]	29.6	28.6	28.8	28.9	29.6[a]	27.7
Smokeless Tobacco	--	--	3.7	4.0	3.2	3.3	3.3	3.2	3.2	3.1

Note 1: Estimates here for 1979 through 1993 may differ from estimates for these survey years that were published in other NHSDA reports. The estimates shown here for 1979 through 1993 have been adjusted to improve their comparability with estimates based on the new version of the NHSDA instrument that was fielded in 1994 and subsequent NHSDAs. See Appendix E for further discussion of adjustment procedures.

Note 2: Estimates for "binge" and heavy alcohol use in this table differ from the corresponding estimates in Chapter 7 because of different treatment of missing values. In this table, respondents who had a missing response to the item "In the past 30 days, on how many days did you have five or more drinks on the same occasion?" were excluded from the analysis. Conversely, in Chapter 7, those who had a missing response on this "days of use" item were essentially treated as nonbinge or nonheavy users.

--Estimate not available.

[a] Difference between this estimate and 1998 estimate is statistically significant at the .05 level.

[b] Difference between this estimate and 1998 estimate is statistically significant at the .01 level.

[1] Any illicit drug indicates use at least once of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP] and lysergic acid diethylamide [LSD]), heroin, or any prescription-type psychotherapeutic used nonmedically. Any illicit drug other than marijuana indicates use at least once of any of these listed drugs, regardless of marijuana use; marijuana users who also have used any of the other listed drugs are included.

[2] Nonmedical use of any prescription-type stimulant, sedative, tranquilizer, or analgesic; does not include over-the-counter drugs.

[3] "Binge" alcohol use is defined as drinking five or more drinks on the same occasion on at least 1 day in the past 30 days. By "occasion" is meant at the same time or within a couple hours of each other. Heavy alcohol use is defined as drinking five or more drinks on the same occasion on each of 5 or more days in the past 30 days; all heavy alcohol users also are "binge" alcohol users.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1979-1998.

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Table 2.5 Trends in Percentage Reporting Drug Use in Their Lifetime, by Age Group: 1979-1998

Drug/Age Group (Unweighted *n*)	1979 (7,224)	1985 (8,021)	1991 (32,594)	1992 (28,832)	1993 (26,489)	1994 (17,809)	1995 (17,747)	1996 (18,269)	1997 (24,505)	1998 (25,500)
Any Illicit Drug[1]										
12-17	31.8[b]	27.4[a]	18.4	15.1[b]	16.4[b]	20.3	22.2	22.1	23.7[a]	21.3
18-25	69.0[b]	62.9[b]	53.9	50.9	50.2	46.3	45.8	48.0	45.4	48.1
26-34	49.0	59.5[a]	58.9[a]	57.9[a]	58.2[a]	56.1[b]	54.8[b]	53.1	50.8	50.6
35+	11.8[b]	18.1[b]	23.7[b]	24.4[b]	26.1[a]	27.7[b]	27.9[b]	29.0[a]	31.5	31.8
Marijuana/Hashish										
12-17	26.7[b]	20.1	11.1[b]	9.1[b]	9.9[b]	13.6[b]	16.2	16.8	18.9[a]	17.0
18-25	66.1[b]	57.6[b]	48.8	46.6	45.7	41.9	41.4[a]	44.0	41.5	44.6
26-34	45.0	54.1	55.2[a]	54.3[a]	54.9[a]	52.7[b]	51.8[b]	50.5	47.9	47.9
35+	9.0[b]	13.9[b]	21.1[b]	22.2[b]	23.8[a]	25.4[b]	25.3[b]	27.0[a]	29.4	29.4
Cocaine										
12-17	5.5[b]	4.7[b]	2.4	1.7	1.1[b]	1.7	2.0	1.9	3.0[a]	2.2
18-25	27.2[b]	24.3[b]	17.8[b]	15.7[b]	12.5[a]	12.1	9.8	10.2	8.9	10.0
26-34	13.4	23.6[b]	25.6[b]	25.1[b]	25.4[b]	23.0[b]	21.6[b]	20.9[b]	18.4	17.1
35+	1.3[b]	4.1[b]	6.8[b]	6.9[b]	8.4[a]	7.9[b]	8.6[a]	8.9[a]	9.9	10.4
Alcohol										
12-17	70.8[b]	56.1[b]	46.9[b]	39.8	41.9	41.7[b]	40.6[a]	38.8	39.7	37.3
18-25	*	*	*	85.8	86.6	86.3[a]	84.4	83.8	83.5	83.2
26-34	*	*	*	91.3	*	91.8[b]	90.1[a]	90.3[a]	88.9	88.2
35+	*	*	85.8	85.4	86.0	89.0[a]	87.1	87.8	87.0	86.6
Cigarettes										
12-17	--	50.7[b]	42.4[a]	37.8	38.7	37.6	38.1	36.3	38.7[b]	35.8
18-25	--	75.3	71.4	69.0	67.1	69.1	67.7	68.5	67.7	68.8
26-34	--	84.7[b]	80.4[a]	78.8	78.1	75.9[b]	75.8[b]	73.8	72.8	71.8
35+	--	82.2	79.5	78.3	79.4	79.8[b]	77.5	77.8[a]	76.0	75.2

Note: Estimates here for 1979 through 1993 may differ from estimates for these survey years that were published in other NHSDA reports. The estimates shown here for 1979 through 1993 have been adjusted to improve their comparability with estimates based on the new version of the NHSDA instrument that was fielded in 1994 and subsequent NHSDAs. See Appendix E for further discussion of adjustment procedures.

*Low precision; no estimate reported.
--Estimate not available.

[a] Difference between this estimate and 1998 estimate is statistically significant at the .05 level.
[b] Difference between this estimate and 1998 estimate is statistically significant at the .01 level.

[1] Use of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP] and lysergic acid diethylamide [LSD]), heroin, or nonmedical use of psychotherapeutics at least once.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1979-1998.

Table 2.6 Trends in Percentage Reporting Drug Use in the Past Year, by Age Group: 1979-1998

Drug/Age Group (Unweighted *n*)	1979 (7,224)	1985 (8,021)	1991 (32,594)	1992 (28,832)	1993 (26,489)	1994 (17,809)	1995 (17,747)	1996 (18,269)	1997 (24,505)	1998 (25,500)
Any Illicit Drug[1]										
12-17	24.3[b]	20.7	13.1[a]	10.4[b]	11.9[b]	15.5	18.0	16.7	18.8[a]	16.4
18-25	45.5[b]	37.4[b]	26.6	24.1	24.2	24.6	25.5	26.8	25.3	27.4
26-34	23.0[b]	26.2[b]	15.5	15.4	14.6	14.8[a]	14.6[a]	14.6[a]	14.3	12.7
35+	3.9	5.5	5.5	4.4	5.5	5.7	5.0	5.3	6.1	5.5
Marijuana/Hashish										
12-17	21.3[a]	16.7	8.5[b]	6.9[b]	8.5[b]	11.4[b]	14.2	13.0	15.8	14.1
18-25	44.2[b]	34.0[b]	22.9	21.2	21.4	21.8	21.8	23.8	22.3	24.1
26-34	20.5[b]	20.2[b]	11.6	11.5	11.1	11.5[a]	11.8[a]	11.3[a]	11.2	9.7
35+	4.3	4.3	4.6	3.8	4.6	4.1	3.4	3.8	4.4	4.1
Cocaine										
12-17	3.6[b]	3.4[b]	1.3	1.0[a]	0.7[b]	1.1	1.7	1.4	2.2	1.7
18-25	17.0[b]	13.6[b]	6.7[a]	5.5	4.4	3.6	4.3	4.7	3.9	4.7
26-34	5.7[a]	10.5[b]	4.4[b]	4.3[a]	3.8	3.5	3.1	3.5	3.1	2.7
35+	0.4[a]	0.9	1.2	0.8	0.9	0.9	0.8	0.9	1.1	0.9
Alcohol										
12-17	55.9[b]	52.7[b]	41.2[b]	33.3	35.9	36.2[b]	35.1[b]	32.7	34.0	31.8
18-25	84.6[a]	84.2[a]	80.7	75.6	76.9	78.5[b]	76.5	75.3	75.1	74.2
26-34	81.7	81.9	79.1	77.3	79.2	78.8[b]	77.0[a]	77.2[a]	74.6	74.5
35+	70.1	70.5	65.9	63.5	65.5	66.2	65.0	64.9	64.1	64.6
Cigarettes										
12-17	--	29.9[a]	23.7	21.4	22.5	24.5	26.6[a]	24.2	26.4[a]	23.8
18-25	--	49.9	46.9	46.8	43.7	41.1[b]	42.5[b]	44.7	45.9	47.1
26-34	--	48.8[b]	41.9[a]	42.8[a]	38.7	36.0	38.4	39.2	37.7	36.6
35+	--	36.9[b]	33.8[a]	32.4	30.9	29.6[a]	28.7	29.1	29.7[b]	26.7

Note: Estimates here for 1979 through 1993 may differ from estimates for these survey years that were published in other NHSDA reports. The estimates shown here for 1979 through 1993 have been adjusted to improve their comparability with estimates based on the new version of the NHSDA instrument that was fielded in 1994 and subsequent NHSDAs. See Appendix E for further discussion of adjustment procedures.

--Estimate not available.

[a] Difference between this estimate and 1998 estimate is statistically significant at the .05 level.
[b] Difference between this estimate and 1998 estimate is statistically significant at the .01 level.

[1] Use of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP] and lysergic acid diethylamide [LSD]), heroin, or nonmedical use of psychotherapeutics at least once.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1979-1998.

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Table 2.7 Trends in Percentage Reporting Illicit Drug Use in the Past Month, by Age Group: 1979-1998

Drug/Age Group (Unweighted *n*)	1979 (7,224)	1985 (8,021)	1991 (32,594)	1992 (28,832)	1993 (26,489)	1994 (17,809)	1995 (17,747)	1996 (18,269)	1997 (24,505)	1998 (25,500)
Any Illicit Drug[1]										
12-17	16.3[a]	13.2	5.8[b]	5.3[b]	5.7[b]	8.2[a]	10.9	9.0	11.4[a]	9.9
18-25	38.0[b]	25.3[b]	15.4	13.1	13.6	13.3[a]	14.2	15.6	14.7	16.1
26-34	20.8[b]	23.1[b]	10.0[a]	11.4[b]	9.5	8.5[a]	8.3	8.4[a]	7.4	7.0
35+	2.8	3.9	3.4	2.5	3.0	3.2	2.8	2.9	3.6	3.3
Marijuana/Hashish										
12-17	14.2[a]	10.2	3.6[b]	3.4[b]	4.0[b]	6.0[b]	8.2	7.1	9.4	8.3
18-25	35.6[b]	21.7[a]	12.9	10.9	11.1	12.1	12.0	13.2	12.8	13.8
26-34	19.7[b]	19.0[b]	7.7	9.3[a]	7.5	6.9[a]	6.7[a]	6.3	6.0	5.5
35+	2.9	2.6	2.6	2.0	2.4	2.3	1.8[a]	2.0	2.6	2.5
Cocaine										
12-17	1.5	1.5	0.4	0.3[b]	0.4	0.3[a]	0.8	0.6	1.0	0.8
18-25	9.9[b]	8.1[b]	2.2	2.0	1.6	1.2[a]	1.3	2.0	1.2[a]	2.0
26-34	3.0[a]	6.3[b]	1.9	1.5	1.0	1.3	1.2	1.5	0.9	1.2
35+	0.2	0.5	0.5	0.2[a]	0.4	0.4	0.4	0.4	0.5	0.5

Note: Estimates here for 1979 through 1993 may differ from estimates for these survey years that were published in other NHSDA reports. The estimates shown here for 1979 through 1993 have been adjusted to improve their comparability with estimates based on the new version of the NHSDA instrument that was fielded in 1994 and subsequent NHSDAs. See Appendix E for further discussion of adjustment procedures.

[a] Difference between this estimate and 1998 estimate is statistically significant at the .05 level.
[b] Difference between this estimate and 1998 estimate is statistically significant at the .01 level.

[1] Use of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP] and lysergic acid diethylamide [LSD]), heroin, or nonmedical use of psychotherapeutics at least once.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1979-1998.

Table 2.8 Trends in Percentage Reporting Alcohol and Tobacco Use in the Past Month, by Age Group: 1979-1998

Drug/Age Group (Unweighted *n*)	1979 (7,224)	1985 (8,021)	1991 (32,594)	1992 (28,832)	1993 (26,489)	1994 (17,809)	1995 (17,747)	1996 (18,269)	1997 (24,505)	1998 (25,500)
Alcohol										
12-17	49.6[b]	41.2[b]	27.0[b]	20.9	23.9[a]	21.6[a]	21.1	18.8	20.5	19.1
18-25	75.1[b]	70.1[a]	63.1	58.6	58.7	63.1	61.3	60.0	58.4	60.0
26-34	71.6[b]	70.6[a]	62.7	62.3	63.8	65.3[b]	63.0	61.6	60.2	60.9
35+	59.7	57.5	50.4	47.4	49.8	54.1	52.6	51.7	52.8	53.1
"Binge" Alcohol Use[1]										
12-17	--	21.9[b]	13.2[a]	10.0	11.0	8.3	7.9	7.2	8.3	7.7
18-25	--	34.4	31.2	29.9	29.1	33.6	29.9	32.0	28.0[a]	31.7
26-34	--	27.5	21.5	22.8	21.9	24.0	24.0	22.8	23.1	22.0
35+	--	12.9	10.1	9.0	9.6	11.8	11.8	11.3	11.7	11.9
Heavy Alcohol Use[1]										
12-17	--	9.5	6.0	3.4	3.4	2.5	2.8	2.9	3.1	2.9
18-25	--	13.8	15.2	15.1	14.0	13.2	12.0	12.9	11.1[a]	13.8
26-34	--	11.5	7.9	8.5	8.5	8.0	7.9	7.1	7.5	7.2
35+	--	5.2	4.4	3.9	5.0	4.8	3.9	3.8	4.0	4.4
Cigarettes										
12-17	--	29.4[b]	20.9	18.4	18.5	18.9	20.2	18.3	19.9	18.2
18-25	--	47.4	41.7	41.5	37.9	34.6[b]	35.3[b]	38.3[a]	40.6	41.6
26-34	--	45.7[b]	37.3	38.2[a]	34.2	32.4	34.7	35.0	33.7	32.5
35+	--	35.5[b]	31.6[a]	30.0	28.2	27.9[a]	27.2	27.0	27.9[b]	25.1

Note 1: Estimates here for 1979 through 1993 may differ from estimates for these survey years that were published in other NHSDA reports. The estimates shown here for 1979 through 1993 have been adjusted to improve their comparability with estimates based on the new version of the NHSDA instrument that was fielded in 1994 and subsequent NHSDAs. See Appendix E for further discussion of adjustment procedures.

Note 2: Estimates for "binge" and heavy alcohol use in this table differ from the corresponding estimates in Chapter 7 because of different treatment of missing values. In the present table, respondents who had a missing response to the item "In the past 30 days, or how many days did you have five or more drinks on the same occasion?" were excluded from the analysis. Conversely, in Chapter 7, those who had a missing response on this days of use item were essentially treated as nonbinge or nonheavy users.

--Estimate not available.

[a] Difference between this estimate and 1998 estimate is statistically significant at the .05 level.
[b] Difference between this estimate and 1998 estimate is statistically significant at the .01 level.

[1] "Binge" alcohol use is defined as drinking five or more drinks on the same occasion on at least 1 day in the past 30 days. By "occasion" is meant at the same time or within a couple hours of each other. Heavy alcohol use is defined as drinking five or more drinks on the same occasion on each of 5 or more days in the past 30 days; all heavy alcohol users also are "binge" alcohol users.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1979-1998.

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Table 2.9 Trends in Percentage of Respondents Reporting Drug Use in Their Lifetime, by Age Group: 1997 and 1998

	Age Group in Years/Survey Year								Total 12+ Years	
	12-17		18-25		26-34		35+			
Drug (Unweighted *n*)	**1997 (7,844)**	**1998 (6,778)**	**1997 (6,239)**	**1998 (7,318)**	**1997 (4,387)**	**1998 (4,537)**	**1997 (6,035)**	**1998 (6,867)**	**1997 (24,505)**	**1998 (25,500)**
Any Illicit Drug Use[1]	23.7[a]	21.3	45.4	48.1	50.8	50.6	31.5	31.8	35.6	35.8
Marijuana/hashish	18.9[a]	17.0	41.5	44.6	47.9	47.9	29.4	29.4	32.9	33.0
Cocaine	3.0[a]	2.2	8.9	10.0	18.4	17.1	9.9	10.4	10.5	10.6
Crack	1.3[a]	0.7	2.9	2.7	3.6	3.9	1.4	1.7	1.9	2.0
Inhalants	7.2	6.1	10.1	10.8	8.3	9.1	3.8	3.8	5.7	5.8
Hallucinogens	6.5	5.3	15.0[a]	17.4	15.1	13.2	7.4	8.2	9.6	9.9
PCP	1.4	1.2	2.4	3.0	3.2	4.0	3.3	3.9	3.0	3.5
Heroin	0.5	0.4	1.0	1.1	1.0	0.9	1.0	1.3	0.9	1.1
Nonmedical use of any psychotherapeutic[2]	7.0[a]	5.6	11.5	11.4	11.7	11.5	8.3	8.8	9.1	9.2
Stimulants	2.3	1.7	3.8	3.9	5.2	5.1	4.9	4.8	4.5	4.4
Sedatives	0.8	1.0	1.5	1.3	2.0	2.0	2.1	2.5	1.9	2.1
Tranquilizers	2.1	1.7	4.9	5.1	4.7	4.6	2.6	3.2	3.2	3.5
Analgesics	5.2	4.6	7.5	8.2	6.8	6.6	3.9	4.5	4.9	5.3
Any illicit drug other than marijuana[1]	14.2[a]	12.0	24.6	26.4	28.4	27.2	16.0	16.4	18.9	18.9
Alcohol	39.7	37.3	83.5	83.2	88.9	88.2	87.0	86.6	81.9	81.3
Cigarettes	38.7[b]	35.8	67.7	68.8	72.8	71.8	76.0	75.2	70.5	69.7
Smokeless Tobacco	9.6	8.9	23.8	24.1	23.9	23.4	15.5	15.6	17.3	17.2

[a] Difference between 1997 estimate and 1998 estimate is statistically significant at the .05 level.
[b] Difference between 1997 estimate and 1998 estimate is statistically significant at the .01 level.

[1] Any illicit drug indicates use at least once of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP] and lysergic acid diethylamide [LSD]), heroin, or any prescription-type psychotherapeutic used nonmedically. Any illicit drug other than marijuana indicates use at least once of any of these listed drugs, regardless of marijuana use; marijuana users who also have used any of the other listed drugs are included.

[2] Nonmedical use of any prescription-type stimulant, sedative, tranquilizer, or analgesic; does not include over-the-counter drugs.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1997 and 1998.

Table 2.10 Trends in Percentage of Respondents Reporting Drug Use in the Past Year, by Age Group: 1997 and 1998

Drug (Unweighted *n*)	Age Group in Years/Survey Year								Total 12+ Years	
	12-17		18-25		26-34		35+			
	1997 (7,844)	1998 (6,778)	1997 (6,239)	1998 (7,318)	1997 (4,387)	1998 (4,537)	1997 (6,035)	1998 (6,867)	1997 (24,505)	1998 (25,500)
Any Illicit Drug Use[1]	18.8[a]	16.4	25.3	27.4	14.3	12.7	6.1	5.5	11.2	10.6
Marijuana/hashish	15.8	14.1	22.3	24.1	11.2	9.7	4.4	4.1	9.0	8.6
Cocaine	2.2	1.7	3.9	4.7	3.1	2.7	1.1	0.9	1.9	1.7
Crack	0.8[a]	0.5	1.0	0.8	0.9	0.7	0.4	0.3	0.6	0.4
Inhalants	4.4[b]	2.9	3.2	3.2	0.7	0.5	0.1	0.2	1.1	0.9
Hallucinogens	4.7	3.8	6.6	7.2	1.6	1.1	0.5	0.2	1.9	1.6
PCP	0.5	0.6	0.4	0.4	*	*	0.1	0.1	0.2	0.2
Heroin	0.3	0.3	0.5	0.4	0.2	0.1	0.2	*	0.3[a]	0.1
Nonmedical use of any psychotherapeutic[2]	5.0[a]	3.7	5.8	6.4	3.7	3.1	1.6	1.5	2.8	2.6
Stimulants	1.7	1.2	1.5	1.9	0.7	0.6	0.5	0.4	0.8	0.7
Sedatives	0.4	0.6	0.6	0.5	0.2	0.1	0.2	0.2	0.3	0.2
Tranquilizers	1.3	1.1	2.5	2.7	1.5	1.1	0.5	0.4	1.0	0.9
Analgesics	3.6	3.1	3.8	4.4	2.3	2.0	1.2	1.1	1.9	1.9
Any illicit drug other than marijuana[1]	10.0[b]	7.5	12.1	13.4	6.8	6.1	3.0	2.4	5.5	4.9
Alcohol	34.0	31.8	75.1	74.2	74.6	74.5	64.1	64.6	64.1	64.0
Cigarettes	26.4[a]	23.8	45.9	47.1	37.7	36.6	29.7[b]	26.7	32.7[a]	30.6
Smokeless Tobacco	4.6	3.7	8.3	9.0	6.1	6.0	3.5	3.1	4.7	4.4

*Low precision; no estimate reported.

[a] Difference between 1997 estimate and 1998 estimate is statistically significant at the .05 level.
[b] Difference between 1997 estimate and 1998 estimate is statistically significant at the .01 level.

[1] Any illicit drug indicates use at least once of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP] and lysergic acid diethylamide [LSD]), heroin, or any prescription-type psychotherapeutic used nonmedically. Any illicit drug other than marijuana indicates use at least once of any of these listed drugs, regardless of marijuana use; marijuana users who also have used any of the other listed drugs are included.

[2] Nonmedical use of any prescription-type stimulant, sedative, tranquilizer, or analgesic; does not include over-the-counter drugs.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1997 and 1998.

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Table 2.11 Trends in Percentage of Respondents Reporting Drug Use in the Past Month, by Age Group: 1997 and 1998

	Age Group in Years/Survey Year								Total 12+ Years	
	12-17		18-25		26-34		35+			
Drug (Unweighted *n*)	**1997 (7,844)**	**1998 (6,778)**	**1997 (6,239)**	**1998 (7,318)**	**1997 (4,387)**	**1998 (4,537)**	**1997 (6,035)**	**1998 (6,867)**	**1997 (24,505)**	**1998 (25,500)**
Any Illicit Drug Use[1]	11.4[a]	9.9	14.7	16.1	7.4	7.0	3.6	3.3	6.4	6.2
Marijuana/hashish	9.4	8.3	12.8	13.8	6.0	5.5	2.6	2.5	5.1	5.0
Cocaine	1.0	0.8	1.2[a]	2.0	0.9	1.2	0.5	0.5	0.7	0.8
Crack	0.4	0.2	0.4	0.3	0.3	0.3	0.2	0.1	0.3	0.2
Inhalants	2.0[b]	1.1	1.0	1.1	0.4	0.1	*	0.1	0.4	0.3
Hallucinogens	1.9	1.8	2.5	2.7	0.5	0.4	0.3	0.2	0.8	0.7
PCP	0.1	0.1	0.1	*	*	*	0.1	*	0.1	*
Heroin	0.2	0.2	0.1	0.2	0.2	*	0.2	*	0.2	0.1
Nonmedical use of any psychotherapeutic[2]	2.1	1.7	2.4	2.7	1.4	1.3	0.8	0.7	1.2	1.1
Stimulants	0.6	0.6	0.7	0.6	0.2	0.2	0.2	0.2	0.3	0.3
Sedatives	0.1	0.2	0.2	0.2	0.1	*	0.1	0.1	0.1	0.1
Tranquilizers	0.5	0.3	1.0	1.0	0.7	0.5	0.2	0.1	0.4	0.3
Analgesics	1.3	1.3	1.3	1.8	0.6	0.9	0.5	0.5	0.7	0.8
Any illicit drug other than marijuana[1]	5.2[a]	4.0	5.4	6.5	2.8	2.8	1.4	1.3	2.6	2.5
Alcohol	20.5	19.1	58.4	60.0	60.2	60.9	52.8	53.1	51.4	51.7
"Binge" alcohol use[3]	8.3	7.7	28.0[a]	31.7	23.1	22.0	11.7	11.9	15.3	15.6
Heavy alcohol use[3]	3.1	2.9	11.1[a]	13.8	7.5	7.2	4.0	4.4	5.4	5.9
Cigarettes	19.9	18.2	40.6	41.6	33.7	32.5	27.9[b]	25.1	29.6[a]	27.7
Smokeless Tobacco	2.0[a]	1.2	4.5	5.4	4.2	4.3	2.9	2.6	3.2	3.1

Note: Estimates for "binge" and heavy alcohol use in this table differ from the corresponding estimates in Chapter 7 because of different treatment of missing values. In the present table, respondents who had a missing response to the item "In the past 30 days, on how many days did you have five or more drinks on the same occasion" were excluded from the analysis. Conversely, in Chapter 7, those who had a missing response on this days of use item were essentially treated as nonbinge or nonheavy users.

*Low precision; no estimate reported.

[a] Difference between 1997 estimate and 1998 estimate is statistically significant at the .05 level.
[b] Difference between 1997 estimate and 1998 estimate is statistically significant at the .01 level.

[1] Any illicit drug indicates use at least once of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP] and lysergic acid diethylamide [LSD]), heroin, or any prescription-type psychotherapeutic used nonmedically. Any illicit drug other than marijuana indicates use at least once of any of these listed drugs, regardless of marijuana use; marijuana users who also have used any of the other listed drugs are included.
[2] Nonmedical use of any prescription-type stimulant, sedative, tranquilizer, or analgesic; does not include over-the-counter drugs.
[3] "Binge" alcohol use is defined as drinking five or more drinks on the same occasion on at least 1 day in the past 30 days. By "occasion" is meant at the same time or within a couple hours of each other. Heavy alcohol use is defined as drinking five or more drinks on the same occasion on each of 5 or more days in the past 30 days; all heavy alcohol users also are "binge" alcohol users.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1997 and 1998.

Chapter 3: Marijuana

Introduction

Since the inception of the NHSDA, marijuana has continued to be the most commonly used illicit drug in this country. In 1998, approximately 72 million (or 33%) of individuals aged 12 or older in the United States reported marijuana use in their lifetime, 19 million (or 9%) reported marijuana use in the past year, and 11 million (or 5%) reported use in the past month. As indicated in the Chapter 2 tables, the percentage of persons reporting marijuana use has remained relatively stable since 1991. The only exception occurred among adolescents, among whom lifetime marijuana use increased steadily between 1992 and 1997; however, the lifetime rate of use among adolescents was significantly lower in 1998 than 1997 (17% vs. 19%). Rates of past year and past month use among adolescents did not differ from 1997 to 1998. Other studies of adolescents have found similar trends (Johnston et al., 1998, 1999). These findings point to the need for continued monitoring of the trends in use among adolescents.

An estimated 2.1 million Americans used marijuana for the first time in 1997 (the year prior to the 1998 survey), slightly fewer than the 2.4 million first-time users in 1995 and 2.5 million in 1996 (OAS, 1999d, Table 41). The number had been increasing since 1991, after a long-term decrease that had been occurring since 1975. Continued monitoring will be needed to determine if the 1997 numbers are the beginning of a downward trend. The rising incidence during the 1990s seems to have been fueled largely by the increasing rate of new users among youths aged 12 to 17 (from 38 per 1,000 person years of exposure in 1991, to about 55 per 1,000 person years in 1993, to about 79 per 1,000 person years in 1996) (OAS, 1999d, Table 41). As with the overall rates, the rates of new use among adolescents were somewhat lower in 1997 at about 64 per 1,000 person years.

This chapter discusses the prevalence and correlates of marijuana and hashish use. The following sections provide a detailed description of the prevalence of marijuana use in demographic subgroups defined by age, gender, race/ethnicity, population density, region, adult education, and current employment status. This chapter also discusses the frequency of marijuana use and the relationship between use of marijuana and the use of other drugs.

Marijuana Use, by Age Group (Tables 3.1 to 3.4)

Prevalence of lifetime, past year, and current marijuana use varied significantly across all age groups. Lifetime use ranged from 48% of adults in the 26 to 34 age group and 45% of adults in the 18 to 25 age group to 17% of the youths in the 12 to 17 age group. Past year and past month marijuana use were highest among young adults in the 18 to 25 age group (24% and 14%, respectively), and lowest among adults in the 35 or older age group (4% and 3%, respectively).

Table 3.4 gives a more refined picture of marijuana use by age. Lifetime prevalence of marijuana use appeared to increase with each age group from 12 to 13 years of age (3%) to 40 to 44 years of age (54%), and decreased sharply in the age group 50 or older (12%). The largest age gradients in the prevalence of marijuana use occurred among youths in their teenage years. In particular, only about 3% of youths aged 12 or 13 used marijuana in the year before taking the 1998 survey. For ages 14 and 15, the prevalence increased to about 15%, and by ages 16 and 17, about one-fourth (25%) had used marijuana in the past year. Similarly, the rate of current use increased from about 2% in the 12 to 13 age group, dramatically to 9% in the 14 to 15 age group, and to 15% in the 16 to 17 age group. This phenomenon may reflect an age-of-onset effect among teen years. First-time use of marijuana occurs most often at these ages (see also Table 10.4). The 1998 Monitoring the Future study reported a similar phenomenon, with large proportional differences

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between 8th and 10th grade students for past year use (17% vs. 31%) and current use (10% vs. 19%) (Johnston et al., 1998, Table 1b; Johnston et al., 1999).

Although the 1997 mean age at first use was somewhat higher than in 1996 (17.1 vs. 16.6 years), the mean age at first use had been gradually decreasing since 1984, which had a high of 19.2 years (OAS, 1999d, Table 41).

Marijuana Use, by Age Group and Gender (Tables 3.1 to 3.3)

Marijuana use—lifetime, past year, and current—was more common among males than among females, except among adolescents (i.e., those aged 12 to 17). Among adults aged 26 or older, marijuana use in the past year or past month was twice as high for males as for females. For example, among adults aged 26 to 34, 13% of males used marijuana in the past year compared with close to 7% of females. For those aged 12 to 17, there were no differences in lifetime, past year, or current use of marijuana by gender.

Marijuana Use, by Age Group and Race/Ethnicity (Tables 3.1 to 3.3)

Race/ethnicity was associated with marijuana use, but the relationships varied by age group and reference period. For lifetime marijuana use among the total population and the 18 to 34 year olds, whites were more likely than blacks (who in turn were more likely than Hispanics) to report use.[1] Additionally in the 35 or older age group, whites and blacks were more likely than Hispanics to report lifetime use.

The patterns in marijuana use were somewhat different, however, for past year and past month use. In the total population, blacks had higher rates of past year and past month use than whites or Hispanics. Among the 18 to 25 and 26 to 34 age groups, past year and past month use were significantly higher among both blacks and whites than Hispanics. No statistically significant differences were found in past year or past month use by race/ethnicity for adolescents.

Marijuana Use, by Age Group, Population Density, and Region (Tables 3.1 to 3.3)

In the total population, those living in either large or small metropolitan areas reported higher rates of lifetime, past year, and past month marijuana use than those living in nonmetropolitan areas. Few significant differences, however, in past year or past month use were found within age groups. In particular, 18 to 25 year olds in small metropolitan areas (17%) reported higher rates of past month use than those in both large metropolitan (13%) and nonmetropolitan areas (10%). Also, among the 26 to 34 age group, those in both large and small metropolitan areas reported higher rates of past month use than those in nonmetropolitan areas.

Differences in marijuana use by geographic region were few. Among the total population, residents of the South were less likely than those in all other regions to report lifetime use. For past year and past month use, those aged 18 to 25 were more likely to have used marijuana in the North Central region than in the Northeast or South.

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[1] In the interest of readability for this report, "white" is used to indicate "white, non-Hispanic" and "black" to indicate "black, non-Hispanic."

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Marijuana Use, by Adult Educational Attainment and Current Employment (Tables 3.1 to 3.3)

When comparing marijuana prevalence rates by educational attainment, very different patterns emerged among adults by age group. (Youths 12 to 17 years of age were excluded from these analyses.) Among the total population, lifetime use was lower among those with less than a high school education than all other education categories. Past year and past month use, however, tended to be lowest among college graduates. Among the total population, past year rates were significantly higher among those with some college than high school and college graduates; past month use was significantly lower among college graduates than all other educational categories. Few differences in past year and past month use were found within age groups. Namely, for young adults aged 18 to 25, rates of past year and past month use were lower among college graduates than other educational categories.

Among the total surveyed adult population, marijuana use in the past year and past month was substantially higher among the unemployed than in any other employment category. (As with educational attainment, the analysis by employment status omitted respondents 12 to 17 years of age.) Almost 38% of unemployed 18 to 25 year olds had used marijuana in the past year and 26% in the past month, up from 27% and 19% respectively in 1994 (OAS, 1996a). Although the rates of past month use were lower among employed persons than among the unemployed, they still represent a substantial number of marijuana users. An estimated 5.4 million current marijuana users were employed full-time, 1.4 million were employed part-time, and 1.1 million were unemployed (OAS, 1999c, Table 41A).

Marijuana Use, by Age Group, Race/Ethnicity, and Gender (Table 3.5)

Table 3.5 allows a further clarification of gender and racial/ethnic differences across different age groups. For the total sample and each of the adult age groups, prevalences of lifetime and past year marijuana use were higher for males than females within every racial/ethnic category. Additionally, past month use was higher among white males than white females and among black males than black females in each of the adult age groups.

For lifetime, past year, and past month marijuana use, black and white adult males reported significantly higher rates of marijuana use than Hispanic adult males, except for past year and past month use among those aged 35 or older. Lifetime use was significantly higher among white females than both black and Hispanic females in each of the adult age groups. In the 18 to 25 age group, white females reported higher past year rates than both black and Hispanic females, and higher past month rates than Hispanic females. In the 26 to 34 age group, black females reported higher rates of past year use than Hispanic females, but their rates did not differ from those of white females.

Among adolescents, no differences were found between race/ethnicity and gender. In other words, youths within every gender and racial/ethnic category were equally likely to report lifetime, past year, and past month marijuana use. Since 1994, however, there have been some significant increases in marijuana use among youths in particular racial/ethnic and gender categories. Specifically, past month use increased among black males (6% in 1994 and 9% in 1998), white females (6% and 9%, respectively), and Hispanic females (4% and 6%, respectively) (OAS, 1996a).

Frequency of Marijuana Use (Tables 3.6 and 3.7)

Tables 3.6 and 3.7 present lifetime and past month data on how many days respondents used marijuana. Of the lifetime users, over half (55%) had used marijuana on 12 days or more in their lifetime, and 32% had used it on more than 100 days (Table 3.6). Among current marijuana users, one-fourth (25%) reported using marijuana on an almost daily basis (i.e., on 20 to 30 days in the past month) (Table 3.7).

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Among those aged 12 to 25, the percentage of past month users who reported using on an almost daily basis increased substantially since 1994. Among 12 to 17 year olds, it increased from 11% in 1994 to 20% in 1998; among 18 to 25 year olds, it increased from 20% in 1994 to 30% in 1998 (OAS, 1996a, 1999a, Table 3.7)

Use of Marijuana and Other Drugs (Table 3.8)

For all age groups, current users of marijuana were more likely than nonusers to drink alcohol, smoke cigarettes, and/or use other illicit drugs. These estimates for using other drugs varied, however, across age groups and substances. Among adolescents, current marijuana users used alcohol and cigarettes at six times the rate of those in this age group who were not current marijuana users. In contrast, for the adult age groups, rates of alcohol and cigarette use were higher among current marijuana users, but the differences were less pronounced. For every age group, however, current marijuana users were 10 to 25 times more likely to use illicit drugs other than marijuana than those who were not current marijuana users.

Discussion

In 1998, marijuana continued to be the most commonly used illicit drug in the United States. Approximately one-third of Americans in the civilian, noninstitutionalized population aged 12 or older ever used marijuana in their lifetime, and 5% or 11 million users could be considered current users. The findings in this chapter show that past year and current (i.e., past month) marijuana use were more likely among adult males aged 18 to 25 than all other age-gender groups. About one in six males in the 18 to 25 age group was a current marijuana user. Additionally, the rate of current marijuana use tended to be lowest in nonmetropolitan areas and among college graduates and highest among the unemployed. The relationship, however, between marijuana use and the various demographic characteristics should be investigated carefully. The interrelationships among several of these variables are likely to be complex. For example, race/ethnicity is associated with socioeconomic variables, such as educational attainment and employment status (Flewelling, Ennett, Rachal, & Theisen, 1993; Wallace & Bachman, 1991). Multivariate analyses would permit a more thorough examination of the independent contributions of each individual demographic characteristic in determining marijuana use.

Some noteworthy findings from this chapter concern marijuana use among adolescents. First, as shown in Chapter 2, the prevalence of marijuana use among adolescents aged 12 to 17 appears to have generally increased since the early 1990s. Specifically, past year use was close to 9% in 1991, had remained over 10% since 1994, and was 14% in 1998 (Table 2.6). Past month use was close to 4% in 1991, but has increased to 8% to 9% since 1997 (Table 2.7). Second, these estimates show that the largest age difference in rates of individuals reporting past year and current marijuana use occur in the teenage years, with rates quintupling between the 12 to 13 age group and the 14 to 15 age group, and doubling for the 16 to 17 age group. Additionally, although the 1997 mean age at first use was somewhat higher than in 1996 (17.1 vs. 16.6 years), the mean age at first use had been gradually decreasing since 1986, which had a high of 19.3 years (OAS, 1999d, Table 41). Another important finding is that the percentage of adolescents who reported using marijuana on an almost daily basis nearly doubled between 1994 and 1998 (11% in 1994 vs. 20% in 1998) (OAS, 1996a). Finally, the data show that adolescents who used marijuana in the past month were much more likely than nonusers to use other illicit drugs (as well as alcohol and tobacco). Taken together, these findings strongly suggest the need for increased efforts to prevent marijuana use among adolescents and thereby reverse these recent trends in marijuana use among youths.

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Table 3.1 Percentage Reporting Marijuana Use in Their Lifetime, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**17.0**	**44.6**	**47.9**	**29.4**	**33.0**
Gender					
Male	17.7	49.4	53.2	35.8	**38.5**
Female	16.1	39.8	42.7	23.8	**27.9**
Race/Ethnicity[1]					
White, non-Hispanic	17.3	50.6	54.7	31.1	**35.5**
Black, non-Hispanic	14.9	37.5	42.1	28.0	**30.2**
Hispanic	18.5	30.9	25.5	20.6	**23.2**
Population Density					
Large metro	16.4	42.3	48.9	32.0	**34.6**
Small metro	19.0	48.4	47.4	31.2	**34.9**
Nonmetro	14.9	41.6	46.4	21.8	**26.8**
Region					
Northeast	17.9	43.7	55.1	29.2	**33.9**
North Central	17.6	49.6	51.0	29.2	**33.9**
South	14.7	41.6	42.4	25.7	**29.2**
West	19.1	44.9	47.0	36.2	**37.3**
Adult Education[2]					
Less than high school	N/A	45.9	45.5	15.9	**24.6**
High school graduate	N/A	43.9	47.8	25.4	**32.0**
Some college	N/A	45.2	51.8	36.3	**41.1**
College graduate	N/A	42.3	45.2	37.7	**39.5**
Current Employment[3]					
Full-time	N/A	48.6	49.8	41.9	**44.7**
Part-time	N/A	42.7	48.4	27.6	**34.5**
Unemployed	N/A	53.8	48.5	48.0	**49.7**
Other[4]	N/A	35.5	37.4	11.8	**16.4**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.
[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted n=18,722).
[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted n=18,722).
[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 3.2 Percentage Reporting Marijuana Use in the Past Year, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				
	12-17	18-25	26-34	35+	Total
Total	**14.1**	**24.1**	**9.7**	**4.1**	**8.6**
Gender					
Male	14.4	28.1	13.0	5.6	**10.8**
Female	13.7	20.0	6.5	2.7	**6.5**
Race/Ethnicity[1]					
White, non-Hispanic	14.6	26.5	10.3	3.9	**8.4**
Black, non-Hispanic	12.1	24.4	11.8	5.8	**10.6**
Hispanic	14.4	16.6	6.4	4.1	**8.2**
Population Density					
Large metro	13.6	22.8	10.6	4.6	**8.7**
Small metro	15.7	27.1	9.9	3.9	**9.4**
Nonmetro	12.4	20.7	7.2	3.2	**6.9**
Region					
Northeast	15.4	22.4	9.9	4.1	**8.3**
North Central	15.0	30.0	10.3	3.2	**9.1**
South	11.8	20.5	9.3	3.7	**7.6**
West	15.5	24.9	9.5	5.4	**9.8**
Adult Education[2]					
Less than high school	N/A	26.4	11.3	2.7	**7.6**
High school graduate	N/A	25.1	9.7	4.3	**8.4**
Some college	N/A	24.2	9.0	4.5	**9.3**
College graduate	N/A	15.8	9.7	4.4	**6.1**
Current Employment[3]					
Full-time	N/A	23.5	9.8	5.8	**9.0**
Part-time	N/A	26.1	12.4	3.2	**10.6**
Unemployed	N/A	37.7	16.3	14.0	**21.0**
Other[4]	N/A	19.4	5.5	1.2	**3.5**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 3.3 Percentage Reporting Marijuana Use in the Past Month, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				
	12-17	18-25	26-34	35+	Total
Total	**8.3**	**13.8**	**5.5**	**2.5**	**5.0**
Gender					
Male	8.6	17.2	8.1	3.5	**6.7**
Female	7.9	10.3	2.9	1.7	**3.5**
Race/Ethnicity[1]					
White, non-Hispanic	8.7	14.9	5.7	2.5	**5.0**
Black, non-Hispanic	8.3	15.2	7.4	3.3	**6.6**
Hispanic	7.6	9.0	3.2	2.4	**4.5**
Population Density					
Large metro	8.1	13.0	6.0	3.0	**5.2**
Small metro	9.1	16.6	6.0	2.3	**5.7**
Nonmetro	7.3	9.8	3.1	2.1	**3.7**
Region					
Northeast	8.3	12.8	5.4	2.4	**4.7**
North Central	9.9	17.9	5.8	2.0	**5.5**
South	6.9	11.2	5.2	2.6	**4.5**
West	8.6	14.3	5.6	3.3	**5.7**
Adult Education[2]					
Less than high school	N/A	17.5	6.2	1.6	**4.8**
High school graduate	N/A	14.5	6.2	3.0	**5.3**
Some college	N/A	13.2	5.6	2.7	**5.3**
College graduate	N/A	6.1	4.2	2.5	**3.1**
Current Employment[3]					
Full-time	N/A	12.8	5.3	3.5	**5.1**
Part-time	N/A	15.3	8.7	2.0	**6.5**
Unemployed	N/A	25.6	10.1	11.5	**15.1**
Other[4]	N/A	10.9	2.7	0.8	**2.0**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.
[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).
[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).
[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 3.4 **Percentage Reporting Marijuana Use in Their Lifetime, the Past Year, and the Past Month, by Age: 1998**

		Time Period		
Age Group in Years	**(Unweighted *n*)**	**Lifetime**	**Past Year**	**Past Month**
Total	(25,500)	33.0	8.6	5.0
12-17 Years	(6,778)	17.0	14.1	8.3
12-13	(2,240)	3.4	3.0	1.7
14-15	(2,356)	16.9	14.6	8.8
16-17	(2,182)	31.5	25.3	14.7
18-25 Years	(7,318)	44.6	24.1	13.8
18-20	(2,981)	44.0	30.8	18.0
21-25	(4,337)	45.0	19.4	10.9
26-34 Years	(4,537)	47.9	9.7	5.5
26-29	(2,017)	45.8	10.3	6.1
30-34	(2,520)	49.6	9.3	4.9
35+ Years	(6,867)	29.4	4.1	2.5
35-39	(1,381)	51.2	9.5	6.2
40-44	(1,179)	53.8	6.9	4.4
45-49	(1,157)	44.4	5.8	3.4
50+	(3,150)	11.5	1.0	0.6

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 3.5 **Percentage Reporting Marijuana Use in Their Lifetime, the Past Year, and the Past Month, by Age Group, Race/Ethnicity, and Gender: 1998**

Race/Ethnicity[1] and Gender	Age Group in Years				
	12-17	18-25	26-34	35+	Total
(Unweighted *n*)					
White, non-Hispanic male	(1,576)	(1,367)	(805)	(1,555)	**(5,303)**
Black, non-Hispanic male	(668)	(742)	(362)	(567)	**(2,339)**
Hispanic male	(910)	(974)	(622)	(537)	**(3,043)**
White, non-Hispanic female	(1,515)	(1,559)	(1,085)	(2,247)	**(6,406)**
Black, non-Hispanic female	(706)	(1,056)	(691)	(1,023)	**(3,476)**
Hispanic female	(959)	(1,213)	(810)	(770)	**(3,752)**
A. Used Marijuana in Their Lifetime					
White, non-Hispanic male	17.2	54.3	59.3	36.9	**40.5**
Black, non-Hispanic male	16.3	46.3	50.2	38.0	**38.5**
Hispanic male	20.3	35.3	31.7	28.4	**29.2**
White, non-Hispanic female	17.4	46.8	50.1	25.9	**30.9**
Black, non-Hispanic female	13.5	29.4	35.4	20.4	**23.5**
Hispanic female	16.6	26.2	18.6	13.1	**16.9**
B. Used Marijuana in the Past Year					
White, non-Hispanic male	14.1	29.8	14.0	5.1	**10.4**
Black, non-Hispanic male	13.4	31.2	15.3	9.5	**14.8**
Hispanic male	14.9	20.9	8.1	6.2	**10.5**
White, non-Hispanic female	15.1	23.1	6.7	2.8	**6.7**
Black, non-Hispanic female	10.7	18.2	9.0	2.9	**7.2**
Hispanic female	13.9	12.0	4.3	2.0	**5.8**
C. Used Marijuana in the Past Month					
White, non-Hispanic male	8.6	18.1	8.7	3.3	**6.5**
Black, non-Hispanic male	9.1	21.4	10.7	6.1	**9.9**
Hispanic male	9.1	10.9	3.9	3.5	**5.7**
White, non-Hispanic female	8.8	11.6	2.7	1.8	**3.6**
Black, non-Hispanic female	7.6	9.5	4.6	1.2	**3.8**
Hispanic female	6.1	7.0	2.5	1.3	**3.2**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

[1] The category "other" for race/ethnicity is not included.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 3.6 Percentage Distribution of Days of Marijuana Use in Their Lifetime for the Total Sample and for Marijuana Users, by Age Group: 1998

Days Used Marijuana in Their Lifetime	**Age Group in Years**				**Total**
	12-17	**18-25**	**26-34**	**35+**	
A. Total Sample					
Did not use	83.0	55.4	52.1	70.6	**67.0**
1-2 days	4.5	9.4	11.5	7.0	**7.8**
3-11 days	3.4	8.9	11.7	6.0	**7.0**
12-100 days	4.2	11.3	11.2	6.4	**7.6**
≥101 days	4.8	14.9	13.1	9.8	**10.4**
Used in lifetime/ days not reported	*	*	0.4	0.2	**0.2**
	100.0	100.0	100.0	100.0	**100.0**
B. Used Marijuana at Least Once in Their Lifetime					
(Unweighted *n*)	(1,291)	(3,017)	(1,858)	(2,206)	**(8,192)**
1-2 days	26.7	21.2	24.2	24.0	**23.7**
3-11 days	20.2	20.0	24.6	20.5	**21.4**
12-100 days	24.9	25.3	23.7	22.0	**23.1**
≥101 days	28.2	33.5	27.6	33.4	**31.8**
	100.0	100.0	100.0	100.0	**100.0**

Note 1: Because of rounding, column percentages for Parts A and B may not total 100.0%. Estimates for persons who used marijuana at least once exclude those who did not report the number of days they used marijuana.

Note 2: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

*Low precision; no estimate reported.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 3.7 Percentage Distribution of Days of Marijuana Use in the Past Month for the Total Sample and for Past Month Marijuana Users, by Age Group: 1998

Days of Use in the Past Month	Age Group in Years				Total
	12-17	18-25	26-34	35+	
A. Total Sample					
Did not use	91.7	86.2	94.5	97.5	**95.0**
1-2 days	2.7	4.2	1.8	0.7	**1.5**
3-4 days	1.2	1.5	0.8	0.2	**0.6**
5-19 days	2.4	3.8	1.7	0.8	**1.5**
20-30 days	1.6	4.0	0.9	0.6	**1.2**
Used in past month/ days not reported	0.4	0.3	0.2	0.2	**0.2**
	100.0	100.0	100.0	100.0	**100.0**
B. Used Marijuana at Least Once in the Past Month					
(Unweighted *n*)	(570)	(913)	(229)	(166)	**(1,878)**
1-2 days	34.1	31.0	35.1	30.2	**32.0**
3-4 days	15.0	10.9	15.4	9.6	**12.0**
5-19 days	31.0	28.3	33.0	32.6	**30.9**
20-30 days	19.9	29.8	16.6	27.6	**25.2**
	100.0	100.0	100.0	100.0	**100.0**

Note 1: Because of rounding, column percentages for Parts A and B may not total 100.0%. Estimates for persons who used marijuana at least once exclude those who did not report the number of days they used marijuana.

Note 2: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 3.8 Percentage Reporting Use of Selected Drugs in the Past Month, by Age Group and Marijuana Use in the Past Month: 1998

Age Group in Years/ Drugs Used in the Past Month	Marijuana Use in the Past Month		
	No[1]	Yes	Total
Total			
(Unweighted *n*)	**(23,518)**	**(1,982)**	**(25,500)**
Alcohol	49.6	89.5	**51.7**
Cigarettes	25.2	74.5	**27.7**
Drugs other than marijuana	1.3	25.3	**2.5**
Nonmedical use of any psychotherapeutic[2]	0.7	8.4	**1.1**
Cocaine	0.3	11.0	**0.8**
12-17 Years			
(Unweighted *n*)	(6,172)	(606)	**(6,778)**
Alcohol	13.4	82.7	**19.1**
Cigarettes	13.1	75.8	**18.2**
Drugs other than marijuana	1.8	27.6	**4.0**
Nonmedical use of any psychotherapeutic[2]	0.9	10.3	**1.7**
Cocaine	0.1	8.6	**0.8**
18-25 Years			
(Unweighted *n*)	(6,368)	(950)	**(7,318)**
Alcohol	54.5	94.3	**60.0**
Cigarettes	35.1	82.4	**41.6**
Drugs other than marijuana	2.7	29.9	**6.5**
Nonmedical use of any psychotherapeutic[2]	1.4	10.8	**2.7**
Cocaine	0.4	11.5	**2.0**
26-34 Years			
(Unweighted *n*)	(4,295)	(242)	**(4,537)**
Alcohol	59.3	88.7	**60.9**
Cigarettes	30.3	70.6	**32.5**
Drugs other than marijuana	1.6	22.9	**2.8**
Nonmedical use of any psychotherapeutic[2]	1.0	6.7	**1.3**
Cocaine	0.4	13.7	**1.2**
35+ Years			
(Unweighted *n*)	(6,683)	(184)	**(6,867)**
Alcohol	52.1	88.4	**53.1**
Cigarettes	24.0	66.9	**25.1**
Drugs other than marijuana	0.8	20.2	**1.3**
Nonmedical use of any psychotherapeutic[2]	0.5	5.7	**0.7**
Cocaine	0.2	10.2	**0.5**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

[1] Includes respondents who reported never using marijuana, as well as those who reported previous but not past month use.

[2] Nonmedical use of any prescription-type stimulant, sedative, tranquilizer, or analgesic; does not include over-the-counter drugs.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Chapter 4: Cocaine

Introduction

Public concern about cocaine continues, as its use among members of the U.S. population remains a public health problem. Cocaine use has been linked to physical health problems, such as strokes and heart attack, as well as thinking and memory disorders (Bolla, Cadet, & London, 1998; Kaku & Lowenstein, 1990; Kaufman et al., 1998; Mittleman et al., 1999; Petitti, Sidney, Quesenberry, & Berstein, 1998). Cocaine use also has been linked to high-risk behaviors, including high-risk sexual behaviors (Chirgwin, DeHovitz, Dillon, & McCormack, 1991; DuRant, Krowchuk, Kreiter, Sinal, & Woods, 1999; Hudgins, McCusker, & Stoddard, 1995; Shrier, Emans, Woods, & DuRant, 1997; Wolfe, Vranizan, Gorter, Keffelew, & Moss, 1992).

As in previous years of the NHSDA, cocaine was the second most commonly used illicit drug (after marijuana) in the United States during 1998. In 1998, NHSDA data show that approximately 23 million (or 11%) of individuals aged 12 or older in the United States reported cocaine use in their lifetime (see Table 2.1), approximately 4 million (or 2%) reported use in the past year, and 1.7 million (or 0.8%) reported current use (i.e., past 30 day use). Additionally, more than 4 million (or 2%) reported crack use[1] in their lifetime, approximately 1 million (or 0.4%) reported past year crack use, and about 437,000 (or 0.2%) reported current crack use. Overall, about 19% of lifetime cocaine users had ever used crack, and about 25% of past year and past month cocaine users had done so (OAS, 1999b, Tables 4A and 5A).

As indicated in the Chapter 2 tables, the percentage of persons reporting cocaine use in the lifetime, past year, and past month remained relatively stable during the 1990s. Among those aged 18 to 25 and 26 to 34, lifetime and past year cocaine use decreased substantially between 1991 and 1998.

This chapter discusses the prevalence and correlates of cocaine use. The following sections provide a detailed description of the prevalence of cocaine use in demographic subgroups defined by age, gender, race/ethnicity, population density, region, adult education, and current employment status. This chapter also discusses the frequency of cocaine use and the relationships between use of cocaine and other drugs.

Cocaine Use, by Age Group (Tables 4.1 to 4.4)

Prevalence of cocaine use varied considerably across age groups. Lifetime cocaine use was higher among 26 to 34 year olds (17%) than all other age groups, while rates of past year and current use were higher among young adults aged 18 to 25 (5% and 2%, respectively) than all other age groups.

Table 4.4 gives a more refined picture of cocaine use by age. The steepest age gradients in the prevalence of lifetime, past year, and past month cocaine use occur in the teenage years. In particular, only about 0.1% of youths aged 12 or 13 had used cocaine in the past year. By ages 14 and 15, the prevalence increased to 1.4%, and by ages 16 and 17, the prevalence nearly tripled to 3.6%. Past month and past year use peaked among the 18 to 20 age group. This phenomenon reflects an age-of-onset effect: First-time use of cocaine occurs most often at these ages (see also Table 10.4). The 1997 Monitoring the Future study reported a similar phenomenon for any illicit drug use other than marijuana (which includes cocaine use), with a proportional increase between 8th and 10th grade students for past year use and current use (Johnston et al., 1998, 1999).

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[1] Because crack (also called "rock" or "base") is a form of cocaine, respondents who reported using crack are included under the more general set of cocaine users.

Cocaine Use, by Age Group and Gender (Tables 4.1 to 4.3)

Lifetime, past year, and past month cocaine use were more common among males than females in the total sample, but when broken down by age, gender differences were not always found within age groups. Among all of the adult age groups, males were more likely than females to report past year cocaine use. Significant gender differences in current use also were found among 18 to 25 year olds and among those 35 or older. For adolescents (i.e., those aged 12 to 17), there were no differences between males and females in rates of lifetime, past year, or current use. Overall, the 1998 results show that males were about twice as likely as females to be past year and past month cocaine users.

Cocaine Use, by Age Group and Race/Ethnicity (Tables 4.1 to 4.3)

Racial/ethnic differences in cocaine use were not as clear as gender differences. Overall and for those aged 26 to 34, whites had higher lifetime use rates than blacks and Hispanics.[2] Lifetime use also was reported more often by whites and Hispanics than blacks among those aged 12 to 25. In the total sample, no differences were found by race/ethnicity for past year use, but past month use was higher among blacks and Hispanics than whites. Somewhat different patterns emerged by age group. Rates of past year and past month use were higher among whites and Hispanics than blacks in the 18 to 25 age group, but they were higher among blacks than whites in the 35 or older age group. Among those aged 26 to 34, current use was higher among blacks than both whites and Hispanics. Between 1997 and 1998, past month rates of cocaine use increased among Hispanics aged 18 to 25 and Hispanic females (OAS, 1999c, Table 64B)

Cocaine Use, by Age Group, Population Density, and Region (Tables 4.1 to 4.3)

In 1998, few differences in cocaine use were found by population density. Past year use was higher among 18 to 25 year olds in small metropolitan areas compared with large metropolitan and nonmetropolitan areas.

There also were few regional differences in past year and current use. In the total population, residents of the West were more likely to report past year cocaine use than those in all other regions. Among young adults aged 18 to 25, residents of the West reported higher past year rates than those in the Northeast and South, and those aged 35 or older in the West reported higher rates than same-aged individuals in the Northeast and North Central regions. The only significant difference in past month rates was that residents of the North Central region were less likely to report such use than those in the South and West.

Cocaine Use, by Adult Educational Attainment and Current Employment (Tables 4.1 to 4.3)

An interesting pattern emerged when cocaine prevalence was assessed by education and current employment. (As noted in Chapter 1, youths aged 12 to 17 were excluded from analyses using adult education or employment status.) In the total population, past year and past month use were more likely among those with less than a high school education than those who had attended or graduated from college. Given that the causes of these associations are not clear from the results alone, factors correlated with education (e.g., income) may be strongly influential, suggesting important issues for future research (Flewelling, Rachal, & Marsden, 1992).

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[2] In the interest of readability for this report, "white" is used to indicate "white, non-Hispanic" and "black" to indicate "black, non-Hispanic."

In general, unemployed adults used cocaine at higher rates than did adults in any other employment classification. Approximately 19% of unemployed adults reported that they had used cocaine at least once in their lives, 6% had used it in the past year, and 3% were currently using cocaine. In the total population, the unemployed were significantly more likely to report past year and past month use of cocaine than those in all other employment categories.

Cocaine Use, by Age Group, Race/Ethnicity, and Gender (Table 4.5)

Table 4.5 provides additional information on the racial/ethnic distinctions by considering reported cocaine prevalence simultaneously by gender, race/ethnicity, and age. Overall and among the 18 to 25 and 35 or older age groups, lifetime cocaine prevalence was higher among males than females across racial/ethnic groups. For 26 to 34 year olds, significant lifetime differences were observed between white males and females and between Hispanic males and females. In general, past year and past month use among the adult age groups also were higher among males than females, although only a few of these differences reached statistical significance. Among males and females aged 18 to 25, past year use was higher among whites and Hispanics than blacks. Few other differences between racial/ethnic groups by gender were statistically significant.

White and Hispanic males reported some of the highest rates of cocaine use. The highest rates of past year use were found among white (7%) and Hispanic (7%) males aged 18 to 25 and, for current use, among Hispanic (4%) males aged 18 to 25.[3]

Lifetime Frequency of Cocaine Use (Table 4.6)

Table 4.6 provides a measure of cocaine use frequency in the overall sample and among those who reported using cocaine at least once in their lifetime. Approximately 19% of lifetime users reported cocaine use on more than 100 days, whereas over half of these respondents reported doing so 11 or fewer days in their lifetime, and over one-quarter reported using it for only 1 or 2 days. Among those who had used cocaine in their lifetime, those aged 26 or older were more likely than younger respondents to have used cocaine on more than 100 days; however, this may reflect their longer period of the possibility of use.

Crack Cocaine Use (Tables 4.7 and 4.8)

An estimated 4.5 million Americans aged 12 or older had used crack in their lifetime, and an estimated 1 million had used crack in the past year (Table 2.1). As shown in Table 4.7, those aged 26 to 34 were most likely to have used crack cocaine in their lifetime (4%) and those aged 12 to 17 least likely to have done so (0.7%). As shown in Table 4.8, past year use of crack was least common among those aged 35 or older (0.3%), but past year rates for all age groups were under 1%. In the total sample, and the 18 to 25 and 35 or older age groups, males reported significantly higher rates of lifetime crack use than females; gender differences also were found for past year use among the total population and the 35 or older age group. Blacks (overall and those aged 26 or older) were more likely to report lifetime and past year crack use than were either whites or Hispanics. Among youths aged 12 to 17 and young adults aged 18 to 25, whites, blacks, and Hispanics reported similar rates of lifetime and past year crack use. Among past year cocaine users, the percentage who used crack was larger among blacks than Hispanics and larger still than among whites (70%, 31%, and 17%, respectively, based on calculations from data in OAS, 1999b, Tables 4B to 4D and 5B to 5D).

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[3] An important caveat to these general patterns involves research that suggests that blacks tend to significantly underreport cocaine use. Potential underreporting by black respondents has important implications for the racial/ethnic comparisons described here (Fendrich & Vaughn, 1994; Research Triangle Institute, 1993).

Few lifetime or past year differences in crack use across population density or regional groups were significant. In the total population, those living in the West were more likely to report past year use than those in the Northeast and North Central regions. In general, less education was associated with a greater likelihood of crack use. Past year crack use also was more likely among unemployed persons than among those in all other employment categories.

Discussion

In 1998, cocaine continued to be the second most commonly used illicit drug (following marijuana) in the United States. Approximately one-tenth of Americans in the civilian, noninstitutionalized population aged 12 or older used cocaine at some time in their lifetime, and about 1% could be considered to be current users. The findings in this chapter show that past year and current (i.e., past month) cocaine use were more common among young adult males aged 18 to 25 than among all other age-gender groups. About 3% of 18- to 25-year-old males were current cocaine users. Additionally, past year and current cocaine use were generally higher among adults with less than a high school education and those who were unemployed. Past year crack use tended to be most common among males, blacks, those with less than a high school education, and adults who were unemployed. It should be noted, however, that the relationship of cocaine use and the various demographic characteristics should be investigated carefully. The interrelationships among several of these variables are likely to be complex. For example, race/ethnicity is intricately associated with educational attainment and employment status. Multivariate analyses would permit a more thorough examination of the independent contributions of individual demographic characteristics in determining cocaine use.

Table 4.1 Percentage Reporting Cocaine Use in Their Lifetime, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**2.2**	**10.0**	**17.1**	**10.4**	**10.6**
Gender					
Male	2.0	12.3	19.3	13.7	**13.1**
Female	2.4	7.7	14.8	7.6	**8.2**
Race/Ethnicity[1]					
White, non-Hispanic	2.4	11.7	19.6	10.9	**11.4**
Black, non-Hispanic	0.1	3.5	10.7	11.2	**8.5**
Hispanic	3.3	11.0	12.7	8.0	**8.9**
Population Density					
Large metro	1.6	9.4	18.6	12.4	**12.1**
Small metro	2.9	11.3	16.6	10.7	**10.9**
Nonmetro	2.3	8.7	13.9	6.2	**7.1**
Region					
Northeast	1.2	7.1	22.1	11.7	**11.8**
North Central	1.5	12.0	14.8	9.1	**9.6**
South	2.5	7.7	14.0	7.4	**8.0**
West	3.1	13.9	19.7	15.6	**14.7**
Adult Education[2]					
Less than high school	N/A	14.1	21.6	5.7	**9.1**
High school graduate	N/A	10.4	17.9	8.7	**10.5**
Some college	N/A	8.6	19.1	12.8	**13.2**
College graduate	N/A	6.1	12.3	13.7	**13.0**
Current Employment[3]					
Full-time	N/A	11.8	17.5	15.0	**15.2**
Part-time	N/A	7.9	21.4	9.0	**10.5**
Unemployed	N/A	15.8	18.0	21.3	**19.1**
Other[4]	N/A	6.8	11.8	3.9	**4.8**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998

Table 4.2 Percentage Reporting Cocaine Use in the Past Year, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**1.7**	**4.7**	**2.7**	**0.9**	**1.7**
Gender					
Male	1.3	5.9	3.6	1.3	**2.3**
Female	2.0	3.4	1.9	0.5	**1.2**
Race/Ethnicity[1]					
White, non-Hispanic	1.9	5.5	2.9	0.7	**1.7**
Black, non-Hispanic	*	1.4	3.4	2.0	**1.9**
Hispanic	2.5	5.1	1.9	1.3	**2.3**
Population Density					
Large metro	1.2	3.8	3.1	1.0	**1.7**
Small metro	2.3	6.1	2.8	0.7	**2.0**
Nonmetro	1.7	3.4	1.7	0.9	**1.4**
Region					
Northeast	0.6	3.3	2.5	0.4	**1.1**
North Central	1.2	5.4	2.9	0.5	**1.6**
South	2.1	3.7	2.6	1.0	**1.7**
West	2.3	6.5	2.9	1.6	**2.5**
Adult Education[2]					
Less than high school	N/A	6.4	5.1	1.5	**2.7**
High school graduate	N/A	4.9	3.4	0.9	**1.9**
Some college	N/A	4.4	1.5	0.7	**1.6**
College graduate	N/A	1.6	2.0	0.6	**1.0**
Current Employment[3]					
Full-time	N/A	5.3	2.8	1.0	**2.0**
Part-time	N/A	3.8	3.2	1.1	**2.1**
Unemployed	N/A	8.8	3.8	5.5	**6.1**
Other[4]	N/A	2.9	1.8	0.4	**0.8**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

*Low precision; no estimate reported.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 4.3 Percentage Reporting Cocaine Use in the Past Month, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**0.8**	**2.0**	**1.2**	**0.5**	**0.8**
Gender					
Male	0.6	2.6	1.4	0.7	**1.1**
Female	1.0	1.3	0.9	0.2	**0.5**
Race/Ethnicity[1]					
White, non-Hispanic	0.9	2.2	1.0	0.3	**0.7**
Black, non-Hispanic	*	0.6	2.7	1.3	**1.3**
Hispanic	1.4	2.7	1.1	0.9	**1.3**
Population Density					
Large metro	0.9	1.8	1.4	0.7	**0.9**
Small metro	0.9	2.4	1.1	0.3	**0.8**
Nonmetro	0.5	1.4	0.7	0.3	**0.5**
Region					
Northeast	0.2	1.8	1.9	*	**0.6**
North Central	0.4	2.3	0.9	0.2	**0.6**
South	1.1	1.7	1.1	0.7	**1.0**
West	1.3	2.2	0.9	0.7	**1.0**
Adult Education[2]					
Less than high school	N/A	3.0	2.7	0.8	**1.4**
High school graduate	N/A	2.0	1.3	0.5	**0.8**
Some college	N/A	1.9	0.7	0.2	**0.7**
College graduate	N/A	*	0.7	0.4	**0.5**
Current Employment[3]					
Full-time	N/A	2.3	1.1	0.6	**0.9**
Part-time	N/A	1.0	1.1	*	**0.5**
Unemployed	N/A	5.8	2.9	2.3	**3.4**
Other[4]	N/A	1.0	0.9	0.2	**0.4**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

*Low precision; no estimate reported.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted n=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted n=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998

Table 4.4 **Percentage Reporting Cocaine Use in Their Lifetime, the Past Year, and the Past Month, by Age: 1998**

		Time Period		
Age Group in Years	**(Unweighted *n*)**	**Lifetime**	**Past Year**	**Past Month**
Total	(25,500)	10.6	1.7	0.8
12-17 Years	(6,778)	2.2	1.7	0.8
12-13	(2,240)	0.2	0.1	0.1
14-15	(2,356)	1.7	1.4	0.7
16-17	(2,182)	4.8	3.6	1.7
18-25 Years	(7,318)	10.0	4.7	2.0
18-20	(2,981)	9.0	5.4	2.1
21-25	(4,337)	10.7	4.2	1.9
26-34 Years	(4,537)	17.1	2.7	1.2
26-29	(2,017)	13.1	2.9	0.9
30-34	(2,520)	20.2	2.6	1.4
35+ Years	(6,867)	10.4	0.9	0.5
35-39	(1,381)	22.6	2.7	1.4
40-44	(1,179)	19.6	1.2	0.8
45-49	(1,157)	17.5	1.1	0.6
50+	(3,150)	2.0	0.2	*

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

*Low precision; no estimate reported.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 4.5 Percentage Reporting Cocaine Use in Their Lifetime, the Past Year, and the Past Month, by Age Group, Race/Ethnicity, and Gender: 1998

Race/Ethnicity[1] and Gender	Age Group in Years				Total
	12-17	18-25	26-34	35+	
(Unweighted *n*)					
White, non-Hispanic male	(1,576)	(1,367)	(805)	(1,555)	**(5,303)**
Black, non-Hispanic male	(668)	(742)	(362)	(567)	**(2,339)**
Hispanic male	(910)	(974)	(622)	(537)	**(3,043)**
White, non-Hispanic female	(1,515)	(1,559)	(1,085)	(2,247)	**(6,406)**
Black, non-Hispanic female	(706)	(1,056)	(691)	(1,023)	**(3,476)**
Hispanic female	(959)	(1,213)	(810)	(770)	**(3,752)**
A. Used Cocaine in Their Lifetime					
White, non-Hispanic male	2.1	14.0	21.8	13.8	**13.9**
Black, non-Hispanic male	0.2	5.7	11.9	17.4	**12.0**
Hispanic male	2.7	12.9	17.1	11.8	**11.9**
White, non-Hispanic female	2.8	9.3	17.4	8.2	**9.2**
Black, non-Hispanic female	*	1.5	9.7	6.6	**5.6**
Hispanic female	3.9	8.9	7.6	4.4	**5.8**
B. Used Cocaine in the Past Year					
White, non-Hispanic male	1.4	6.7	4.0	0.9	**2.1**
Black, non-Hispanic male	*	1.9	3.4	3.1	**2.5**
Hispanic male	2.0	6.9	2.7	2.4	**3.2**
White, non-Hispanic female	2.4	4.3	1.9	0.5	**1.3**
Black, non-Hispanic female	*	0.9	3.3	1.1	**1.3**
Hispanic female	3.1	3.1	0.9	0.3	**1.3**
C. Used Cocaine in the Past Month					
White, non-Hispanic male	0.7	2.9	1.2	0.5	**0.9**
Black, non-Hispanic male	*	0.7	3.0	2.1	**1.7**
Hispanic male	1.1	3.5	1.6	1.5	**1.8**
White, non-Hispanic female	1.2	1.5	0.8	0.2	**0.5**
Black, non-Hispanic female	*	0.5	2.4	0.7	**0.9**
Hispanic female	1.7	1.9	0.5	0.3	**0.8**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

*Low precision; no estimate reported.

[1] The category "other" for race/ethnicity is not included.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 4.6 Percentage Distribution of Days of Cocaine Use in Their Lifetime for the Total Sample and for Cocaine Users, by Age Group: 1998

Days Used Cocaine in Their Lifetime	Age Group in Years				
	12-17	18-25	26-34	35+	Total
A. Total Sample					
Did not use	97.8	90.0	82.9	89.6	**89.4**
1-2 days	0.9	3.9	4.6	2.3	**2.7**
3-11 days	0.7	2.6	4.5	2.9	**2.9**
12-100 days	0.3	2.0	4.8	3.1	**2.9**
≥101 days	0.2	1.5	3.1	2.1	**2.0**
Used in lifetime/ days not reported	*	*	0.1	*	*
	100.0	100.0	100.0	100.0	**100.0**
B. Used Cocaine at Least Once in Their Lifetime					
(Unweighted *n*)	(226)	(734)	(696)	(739)	**(2,395)**
1-2 days	41.6	39.0	27.2	22.2	**25.9**
3-11 days	32.5	25.7	26.3	27.8	**27.3**
12-100 days	15.3	20.4	28.2	29.7	**27.9**
≥101 days	10.6	14.9	18.3	20.3	**18.9**
	100.0	100.0	100.0	100.0	**100.0**

Note 1. Because of rounding, column percentages for Parts A and B may not total 100.0%. Estimates for persons who used cocaine at least once exclude those who did not report the number of days they used cocaine.

Note 2. Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

*Low precision; no estimate reported.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 4.7 Percentage Reporting Crack Use in Their Lifetime, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**0.7**	**2.7**	**3.9**	**1.7**	**2.0**
Gender					
Male	0.7	3.7	4.5	2.4	**2.8**
Female	0.8	1.7	3.2	1.0	**1.4**
Race/Ethnicity[1]					
White, non-Hispanic	0.8	3.2	3.6	1.2	**1.8**
Black, non-Hispanic	*	1.4	6.3	5.4	**4.2**
Hispanic	1.1	2.3	2.8	1.5	**1.9**
Population Density					
Large metro	0.7	2.3	4.3	1.6	**2.1**
Small metro	0.9	3.3	3.7	1.4	**2.0**
Nonmetro	0.6	2.3	2.9	2.2	**2.1**
Region					
Northeast	0.4	1.6	3.1	1.4	**1.6**
North Central	0.7	3.0	3.3	0.9	**1.6**
South	0.8	2.5	4.6	1.7	**2.2**
West	1.0	3.6	3.7	2.6	**2.7**
Adult Education[2]					
Less than high school	N/A	5.2	8.8	2.3	**3.6**
High school graduate	N/A	2.9	3.9	2.0	**2.4**
Some college	N/A	1.7	4.4	2.0	**2.4**
College graduate	N/A	0.5	1.1	0.6	**0.7**
Current Employment[3]					
Full-time	N/A	3.1	3.8	1.8	**2.5**
Part-time	N/A	1.9	3.6	1.3	**1.8**
Unemployed	N/A	5.1	7.2	8.3	**7.2**
Other[4]	N/A	1.9	3.1	1.0	**1.3**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

*Low precision; no estimate reported.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 4.8 Percentage Reporting Crack Use in the Past Year, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**0.5**	**0.8**	**0.7**	**0.3**	**0.4**
Gender					
Male	0.3	1.0	0.7	0.5	**0.6**
Female	0.6	0.5	0.7	0.2	**0.3**
Race/Ethnicity[1]					
White, non-Hispanic	0.5	0.8	0.5	0.1	**0.3**
Black, non-Hispanic	*	0.5	2.3	1.5	**1.3**
Hispanic	0.7	1.1	0.6	0.6	**0.7**
Population Density					
Large metro	0.4	0.7	0.9	0.4	**0.5**
Small metro	0.7	0.8	0.5	0.3	**0.4**
Nonmetro	0.1	0.9	0.6	0.2	**0.4**
Region					
Northeast	0.2	0.5	1.0	0.2	**0.3**
North Central	0.5	0.7	0.5	0.1	**0.3**
South	0.5	0.6	0.7	0.4	**0.5**
West	0.6	1.5	0.8	0.5	**0.7**
Adult Education[2]					
Less than high school	N/A	1.6	2.1	1.0	**1.2**
High school graduate	N/A	0.9	0.9	0.2	**0.4**
Some college	N/A	0.4	0.5	0.2	**0.3**
College graduate	N/A	*	0.1	*	**0.1**
Current Employment[3]					
Full-time	N/A	1.0	0.6	0.2	**0.4**
Part-time	N/A	0.4	0.3	0.2	**0.3**
Unemployed	N/A	1.6	2.4	3.1	**2.5**
Other[4]	N/A	0.4	1.1	0.3	**0.3**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

*Low precision; no estimate reported.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Chapter 5: Inhalants, Hallucinogens, and Heroin

Introduction

Although the prevalence of use of inhalants, hallucinogens, and heroin is relatively low, the use of these drugs is highly dangerous. Use of inhalants has been linked to sudden death and to chronic damage to the heart, lungs, kidneys, liver, and brain (Flanagan, Ruprah, Meredith, & Ramsey, 1990; Ramsey, Anderson, Bloor, & Flanagan, 1989; Sawaguchi, Nakada, Ohue, & Kotani, 1989; Shepherd, 1989). In addition, many types of inhalants are particularly easy to obtain, and inhalants are an early drug of abuse for many adolescents (see Table 10.4). Use of hallucinogenic drugs can produce unpredictable, erratic, and violent behavior in users that sometimes leads to serious injuries and death (Prevention Partners, 1999). Use of heroin causes physical and psychological problems, such as shallow breathing, nausea, panic, insomnia, and a need for increasingly higher doses of the drug to get the same effect (Epstein & Gfroerer, 1998b). Heroin also is of great concern because it is usually taken intravenously and can therefore contribute to the spread of the acquired immune deficiency syndrome (AIDS).

In 1998, approximately 10% of the U.S. household population reported ever having used hallucinogens, and roughly 6% reported lifetime use of inhalants (see Table 2.1). The lifetime prevalence level of heroin use (1.1%) remained quite low compared with most other drugs; however, estimates of heroin use from the NHSDA may be considered conservative due to probable undercoverage of the population of heroin users (Bray & Marsden, 1999).

Inhalant Use (Tables 5.1 to 5.3)

Inhalants, defined as fumes or gases that are inhaled to produce a high, include common household substances, such as glues, aerosols, butane, and solvents. Approximately 12.6 million of the 218 million persons represented in the 1998 NHSDA, or 6%, reported lifetime inhalant use (see Table 2.1). About 2 million people (0.9%) used in the past year, and 713,000 people (0.3%) used in the past month.

As shown in Tables 2.2, 2.3, and 2.4, respectively, inhalant use has remained relatively stable since the early 1990s. There were no significant changes among the total population in lifetime, past year, or past month prevalence of inhalant use between 1997 and 1998. However, among adolescents, past year and past month use were significantly lower, by nearly half in 1998 than in 1997. Past year rates among adolescents were 4.4% in 1997 and 2.9% in 1998, while past month rates were 2.0% and 1.1%, respectively (see Tables 2.10 and 2.11).

As seen in Table 5.1, nitrous oxide and amyl nitrite (i.e., poppers) were the inhalants most frequently reported in the lifetime (2.8% and 2.4%, respectively). Different age groups, however, appeared to have different inhalants of choice. Among adolescents (i.e., youths aged 12 to 17), gasoline and glue (2%) were the inhalants most commonly reported. Nitrous oxide was the inhalant most frequently reported by young adults aged 18 to 25 (8%), amyl nitrite and nitrous oxide were reported equally frequently by adults aged 26 to 34 (4%), and amyl nitrite was the inhalant most commonly reported by the oldest age group (2%). Among 12 to 17 year olds between 1997 and 1998, there was a significant decrease in the lifetime rate of using amyl nitrite (from 0.8% in 1997 to 0.3% in 1998), nitrous oxide (from 2.3% to 1.5%), spray paint (from 2.2% to 1.4%), and other aerosol sprays (from 1.9% to 1.1%) (OAS, 1999c, Table 78B).

Inhalant Use, by Age Group, Gender, and Race/Ethnicity. Past year inhalant use was inversely related to age, being lower for adults aged 26 or older (0.2% to 0.5%) and higher for youths aged 12 to 17 and young adults aged 18 to 25 (3% for each group).

Inhalant use also varied by gender. Among adults (i.e., those aged 18 or older), males reported higher prevalences of lifetime inhalant use than their female counterparts. Gender differences in past year use were found only in the total population and the 18 to 25 age group.

Race/ethnicity also was associated with the prevalence of inhalant use. Past year use among those in the 18 to 25 age group was higher among whites than both blacks and Hispanics, while among adolescents, past year use was higher among whites and Hispanics than blacks.[1]

Inhalant Use, by Other Demographic Characteristics. Other demographic characteristics evidenced few associations with past year inhalant use. Overall and for young adults aged 18 to 25, respondents living in small metropolitan areas were significantly more likely to have used inhalants in the past year than were those residing in large metropolitan and nonmetropolitan areas. No significant associations between region, adult education, or current employment and past year inhalant use were found.

Hallucinogen Use[2] (Tables 5.4 to 5.8)

Hallucinogenic drugs are substances that distort the perception of objective reality. Hallucinogens include lysergic acid diethylamide (LSD), phencyclidine (PCP), ecstasy, mescaline, peyote, and psilocybin (mushrooms). Approximately 21.6 million of the 218 million persons represented in the 1998 NHSDA survey (10%) used hallucinogens in their lifetime, 3.6 million persons (2%) used them in the past year, and 1.5 million persons (0.7%) used them in the past month (see Table 2.1). Lifetime hallucinogen use increased from the mid-1980s (7%) and early 1990s (8%) to 1998 (10%), while past year use was relatively stable during the 1990s. Past month use increased significantly between 1992 (0.4%) and 1998 (0.7%) (see Tables 2.2 to 2.4).

The rates of hallucinogen use as a whole remained relatively stable between 1997 and 1998, except among 18 to 25 year olds for whom significantly higher rates of lifetime use were reported in 1998 (17%) compared to 1997 (15%) (see Tables 2.9 to 2.11). In the total population, the lifetime rate of use of peyote and psilocybin increased from 1997 to 1998 (peyote, 1.4% to 2.0%; psilocybin, 4.7% to. 5.6%) (OAS, 1999c, Table 78B). Among 18 to 25 year olds, lifetime use of psilocybin increased from 8% to 11%.

Overall and in each of the four age categories shown in Table 5.4, LSD was the hallucinogen most frequently reported, followed by psilocybin. A total of 17.2 million (8%) had ever tried LSD, and 12.3 million (6%) had ever tried psilocybin in 1998 (OAS, 1999c, Table 78A). Overall, lifetime prevalence rates for other specific hallucinogenic drugs were 3.5% for PCP, 3.2% for mescaline, 1.5% for ecstasy, and 2.0% for peyote.

Hallucinogen Use, by Age Group, Gender, and Race/Ethnicity. Past year use of hallucinogens was highest among 18 to 25 year olds (7%), followed by 12 to 17 year olds (4%), 26 to 34 year olds (1%), and those 35 or older (0.2%).

Hallucinogen use also varied by gender. Males were more likely than females to report lifetime hallucinogen use, both in the overall sample and among each of the adult age groups. Gender differences in past year use were found only for the total population and the 18 to 25 age group.

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[1] In the interest of readability for this report, "white" is used to indicate "white, non-Hispanic" and "black" to indicate "black, non-Hispanic."

[2] Additional information on the use of LSD and PCP is provided in separate sections, following this general discussion on hallucinogens.

Race/ethnicity was associated with the prevalence of hallucinogen use. In the total population and each age group, whites reported higher levels of lifetime hallucinogen use than Hispanics and blacks. In the three youngest age groups, Hispanics reported higher lifetime rates of use than blacks. The largest differences in reported use occurred among 18 to 25 year olds; whites were almost 7 times more likely than blacks to report lifetime hallucinogen use. In the total population and the two youngest age groups, past year use was higher among whites and Hispanics than among blacks.

Hallucinogen Use, by Other Demographic Characteristics. There were few differences in past year hallucinogen use by population density, region, adult education, and current employment. In the total population and the 18 to 25 age group, past year hallucinogen use was higher among respondents in small metropolitan areas than among those in large metropolitan and nonmetropolitan areas. Among 18 to 25 year olds, residents of the North Central region reported higher rates of past year use than residents of the West and South. In the total population, past year use was lower among college graduates than all other educational categories, and use was highest among the unemployed.

PCP Use (Table 5.7)

In 1998, an estimated 7.6 million people (4% of the surveyed population) reported ever using PCP, and 346,000 people (0.2%) reported using PCP in the past year (see Table 2.1). Between 1997 and 1998, no statistically significant differences were found for any age group for lifetime, past year, and past month use of PCP (see Tables 2.9 to 2.11).

Overall and for those aged 35 or older, males were significantly more likely than their female counterparts to report ever using PCP. Except among adults 35 or older, whites reported a greater prevalence of PCP use in their lifetime than blacks. In the overall population, whites also reported greater lifetime use than Hispanics. In the overall population and the 35 or older age group, lifetime PCP use was significantly more common in the West and North Central regions than in the South. In the total population and the 35 or older age group, respondents who were unemployed reported higher levels of lifetime PCP use than respondents in the other three employment categories (full-time, part-time, and other).

LSD Use (Tables 5.8 and 5.9)

In 1998, an estimated 17.2 million people (8% of the surveyed population) reported ever using LSD, and 1.8 million people (0.8%) reported using LSD in the past year (OAS, 1999c, Tables 134A, 134B, 144A, and 144B). Between 1997 and 1998, no statistically significant differences in the rates of use were found for any age group for lifetime, past year, and past month use of LSD.

Past year LSD use was significantly higher among adolescents (2.6%) and adults aged 18 to 25 (3.4%) than among the older age groups. Overall and for all of the adult age groups, males were significantly more likely than their female counterparts to report ever using LSD. However, no significant differences by gender were found for past year use in the total population or in any of the age groups. In the total sample and the two younger age groups, whites reported higher past year use than Hispanics, who in turn reported higher rates than blacks. In the total population and the 18 to 25 age group, residents of the North Central region reported higher past year use than those in the South and West.

Heroin Use (Tables 5.10 and 5.11)

Heroin is an illegal opiate drug that is highly addictive. About 2.4 million (1.1%) of the 218 million persons represented in the 1998 NHSDA reported heroin use in their lifetime, while 253,000 persons (0.1%)

reported use in the past year and 130,000 persons (0.1%) reported use in the past month (see Table 2.1).[3] Between 1997 and 1998, no statistically significant differences were found for any age group for lifetime and past month heroin use (see Tables 2.9 and 2.11). However, past year use among the total population did decrease from 0.3% in 1997 to 0.1% in 1998 (see Table 2.10).

In the total population, males were more likely than females and blacks were more likely than whites and Hispanics to report lifetime use of heroin. Lifetime use also was higher among unemployed persons than those employed full- or part-time. Those aged 12 to 25 were more likely to report past year heroin use than were those 26 or older (OAS, 1999b, Table 18).

Heroin can be taken in various ways, such as injection, smoking, sniffing, and snorting. In 1998, about 1.4 million people reported lifetime smoking of heroin, and approximately 1.7 million persons reported having ever sniffed or snorted heroin (OAS, 1999c, Table 78A). Table 5.11 shows lifetime heroin prevalence for selected demographic groups by method of administration and by age of respondent in 1998. Fewer than 1% of the overall population reported ever using a method of heroin administration (i.e., smoking, snorting or sniffing, or injecting heroin).

Discussion

In 1998, inhalants, hallucinogens, and heroin continued to be used by a minority of Americans in the civilian, noninstitutionalized population aged 12 or older. This chapter shows that (a) inhalants had been used by about 6% of the population at some time in their lifetime and 1% in the past year, (b) hallucinogens had been used by 10% of the population in their lifetime and 2% in the past year, and (c) heroin had been used by approximately 1% of the population at least once in their lifetime. Although rates of use of inhalants, hallucinogens, and heroin were relatively stable between 1997 and 1998 for most groups, inhalant use decreased among youths aged 12 to 17.

This chapter also shows that there were important demographic differences in the prevalence of inhalant, hallucinogen, and heroin use. In general, use of inhalants and hallucinogens was more commonly reported among males and whites. Heroin use was more commonly reported among males and blacks.

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[3] Estimates of heroin use from the survey are likely to be low due to the probable undercoverage of the heroin-using population, many of whom are believed to be outside the sampling frame. For example, 20% of all past year heroin users were from the nonhousehold population (homeless and the institutionalized), according to the Washington, DC, Metropolitan Area Drug Study (DC*MADS) (Bray & Marsden, 1999; National Institute on Drug Abuse [NIDA], 1994).

Table 5.1 Percentage Reporting Inhalant Use in Their Lifetime, by Inhalant Type and Age Group: 1998

Inhalant Type	12-17	18-25	26-34	35+	Total
	Age Group in Years				
Any Inhalant	6.1	10.8	9.1	3.8	**5.8**
Gasoline	2.0	2.2	0.6	0.4	**0.8**
Lighter Gases	0.8	0.9	0.2	0.1	**0.3**
Spray Paints	1.4	1.0	0.3	0.2	**0.4**
Aerosol Sprays	1.1	1.2	0.4	0.3	**0.5**
Glue	2.2	2.0	1.2	0.6	**1.1**
Lacquer Thinners	0.9	1.2	0.6	0.1	**0.4**
Amyl Nitrite	0.3	1.7	4.4	2.3	**2.4**
Ether	0.2	0.4	0.2	0.1	**0.2**
Nitrous Oxide	1.5	7.9	4.4	1.5	**2.8**
Correction Fluids	1.6	1.1	0.7	0.1	**0.5**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 5.2 Percentage Reporting Inhalant Use in Their Lifetime, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				
	12-17	18-25	26-34	35+	Total
Total	**6.1**	**10.8**	**9.1**	**3.8**	**5.8**
Gender					
Male	6.1	14.0	11.8	5.8	**7.9**
Female	6.0	7.6	6.4	2.0	**3.7**
Race/Ethnicity[1]					
White, non-Hispanic	7.2	14.2	11.2	4.2	**6.6**
Black, non-Hispanic	2.1	2.2	2.1	2.2	**2.2**
Hispanic	5.6	5.9	5.5	2.4	**4.1**
Population Density					
Large metro	5.1	9.4	10.5	4.4	**6.1**
Small metro	6.5	14.0	8.3	3.7	**6.2**
Nonmetro	7.4	7.1	7.0	2.8	**4.4**
Region					
Northeast	4.9	11.1	9.9	5.3	**6.7**
North Central	7.4	13.8	9.9	3.2	**6.1**
South	5.1	7.9	7.2	2.6	**4.2**
West	7.3	12.1	10.5	4.9	**7.1**
Adult Education[2]					
Less than high school	N/A	10.4	8.9	2.0	**4.3**
High school graduate	N/A	8.7	9.2	3.1	**5.0**
Some college	N/A	12.8	9.9	4.2	**7.0**
College graduate	N/A	12.2	8.3	5.4	**6.4**
Current Employment[3]					
Full-time	N/A	11.5	10.2	5.9	**7.7**
Part-time	N/A	12.7	9.9	3.1	**6.6**
Unemployed	N/A	14.7	6.1	7.4	**9.2**
Other[4]	N/A	6.6	3.8	0.8	**1.7**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.
[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).
[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).
[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 5.3 Percentage Reporting Inhalant Use in the Past Year, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**2.9**	**3.2**	**0.5**	**0.2**	**0.9**
Gender					
Male	2.8	4.6	0.6	0.4	**1.3**
Female	3.0	1.8	0.4	*	**0.6**
Race/Ethnicity[1]					
White, non-Hispanic	3.4	4.3	0.6	0.2	**1.0**
Black, non-Hispanic	1.0	0.9	0.1	0.1	**0.3**
Hispanic	2.8	1.4	0.5	0.4	**0.9**
Population Density					
Large metro	2.4	2.1	0.6	0.2	**0.7**
Small metro	3.4	4.9	0.3	0.2	**1.2**
Nonmetro	3.2	1.9	0.5	0.1	**0.7**
Region					
Northeast	2.3	4.0	0.7	0.1	**0.8**
North Central	3.0	3.5	0.3	*	**0.8**
South	2.6	2.8	0.2	0.2	**0.8**
West	3.8	2.8	1.0	0.5	**1.3**
Adult Education[2]					
Less than high school	N/A	2.7	0.6	0.1	**0.6**
High school graduate	N/A	3.1	0.6	0.1	**0.7**
Some college	N/A	4.0	0.4	0.2	**1.0**
College graduate	N/A	1.7	0.4	0.4	**0.5**
Current Employment[3]					
Full-time	N/A	4.0	0.5	0.4	**0.9**
Part-time	N/A	2.8	1.0	*	**0.9**
Unemployed	N/A	3.2	*	*	**1.2**
Other[4]	N/A	2.0	0.1	*	**0.2**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

*Low precision; no estimate reported.

[1] The category "other" for race/ethnicity is not included.
[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).
[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).
[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 5.4 Percentage Reporting Hallucinogen Use in Their Lifetime, by Hallucinogen Type and Age Group: 1998

	Age Group in Years				
Hallucinogen	12-17	18-25	26-34	35+	Total
Any Hallucinogen	5.3	17.4	13.2	8.2	**9.9**
LSD	4.2	14.0	10.6	6.5	**7.9**
Peyote	0.4	1.5	1.4	2.5	**2.0**
Mescaline	0.2	2.1	2.5	4.1	**3.2**
Psilocybin (Mushrooms)	2.6	10.9	7.1	4.7	**5.6**
PCP	1.2	3.0	4.0	3.9	**3.5**
Ecstasy (MDMA)	1.6	5.0	2.6	0.5	**1.5**

Note Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994

LSD=lysergic acid diethylamide. MDMA=methylenedioxy-methamphetamine; PCP=phencyclidine

Source: Office of Applied Studies, SAMHSA. National Household Survey on Drug Abuse, 1998.

Table 5.5 Percentage Reporting Use of Any Hallucinogens in Their Lifetime, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**5.3**	**17.4**	**13.2**	**8.2**	**9.9**
Gender					
Male	5.4	20.5	16.2	11.1	**12.6**
Female	5.3	14.2	10.2	5.7	**7.4**
Race/Ethnicity[1]					
White, non-Hispanic	6.6	22.6	16.4	9.1	**11.5**
Black, non-Hispanic	0.8	3.4	3.6	6.7	**4.8**
Hispanic	3.8	9.8	6.9	3.4	**5.3**
Population Density					
Large metro	5.2	16.6	13.8	8.8	**10.2**
Small metro	6.0	19.6	13.6	9.5	**11.2**
Nonmetro	4.7	14.5	10.8	5.2	**7.1**
Region					
Northeast	4.7	17.3	12.7	6.7	**8.7**
North Central	6.0	21.3	14.6	8.3	**10.7**
South	4.7	14.0	10.5	5.9	**7.6**
West	6.2	18.6	16.2	13.5	**13.8**
Adult Education[2]					
Less than high school	N/A	18.9	13.6	5.4	**8.6**
High school graduate	N/A	16.6	11.9	5.4	**8.2**
Some college	N/A	17.7	15.3	11.9	**13.7**
College graduate	N/A	15.9	12.4	10.6	**11.3**
Current Employment[3]					
Full-time	N/A	19.4	13.4	12.0	**13.3**
Part-time	N/A	17.2	15.7	6.9	**10.9**
Unemployed	N/A	22.3	16.9	18.7	**19.4**
Other[4]	N/A	11.9	9.2	2.7	**4.3**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.
[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).
[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).
[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 5.6 Percentage Reporting Use of Any Hallucinogens in the Past Year, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**3.8**	**7.2**	**1.1**	**0.2**	**1.6**
Gender					
Male	4.0	8.8	1.5	0.2	**2.0**
Female	3.6	5.6	0.8	0.2	**1.3**
Race/Ethnicity[1]					
White, non-Hispanic	4.8	9.2	1.1	0.2	**1.8**
Black, non-Hispanic	0.7	1.5	0.4	0.1	**0.4**
Hispanic	2.3	4.4	1.5	0.3	**1.6**
Population Density					
Large metro	3.8	5.9	1.1	0.2	**1.4**
Small metro	4.4	9.4	1.3	0.1	**2.1**
Nonmetro	2.9	5.2	0.8	0.3	**1.3**
Region					
Northeast	3.6	7.6	0.7	0.2	**1.5**
North Central	3.8	10.6	1.8	0.1	**2.1**
South	3.6	5.0	0.5	0.2	**1.2**
West	4.4	6.6	1.8	0.4	**1.9**
Adult Education[2]					
Less than high school	N/A	7.2	1.2	0.2	**1.4**
High school graduate	N/A	7.8	1.4	0.2	**1.6**
Some college	N/A	7.6	0.8	0.1	**1.7**
College graduate	N/A	3.4	1.1	0.4	**0.7**
Current Employment[3]					
Full-time	N/A	7.7	0.9	0.2	**1.3**
Part-time	N/A	7.3	3.4	0.4	**2.6**
Unemployed	N/A	9.3	3.6	*	**4.4**
Other[4]	N/A	5.4	*	*	**0.6**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

*Low precision; no estimate reported.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted n=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted n=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 5.7 Percentage Reporting PCP Use in Their Lifetime, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**1.2**	**3.0**	**4.0**	**3.9**	**3.5**
Gender					
Male	1.2	3.3	4.4	5.3	**4.4**
Female	1.2	2.6	3.6	2.7	**2.7**
Race/Ethnicity[1]					
White, non-Hispanic	1.5	3.6	4.7	4.1	**3.9**
Black, non-Hispanic	0.3	1.0	1.5	4.3	**2.8**
Hispanic	0.6	2.8	2.9	1.7	**2.0**
Population Density					
Large metro	1.0	3.6	4.5	4.0	**3.8**
Small metro	1.6	2.9	3.9	4.0	**3.6**
Nonmetro	0.9	1.7	2.7	3.4	**2.8**
Region					
Northeast	1.2	3.4	5.0	3.7	**3.6**
North Central	1.0	3.5	4.1	4.8	**4.1**
South	1.1	2.6	3.1	2.6	**2.5**
West	1.5	2.7	4.4	5.3	**4.4**
Adult Education[2]					
Less than high school	N/A	5.5	6.2	2.1	**3.2**
High school graduate	N/A	2.8	3.7	3.2	**3.2**
Some college	N/A	2.2	4.5	6.3	**5.1**
College graduate	N/A	1.2	2.9	3.9	**3.5**
Current Employment[3]					
Full-time	N/A	3.4	3.9	5.6	**4.9**
Part-time	N/A	2.8	6.8	2.3	**3.1**
Unemployed	N/A	4.9	3.8	14.8	**9.8**
Other[4]	N/A	1.6	2.6	1.2	**1.3**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 5.8 Percentage Reporting LSD Use in Their Lifetime, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				
	12-17	18-25	26-34	35+	Total
Total	**4.2**	**14.0**	**10.6**	**6.5**	**7.9**
Gender					
Male	4.4	16.6	13.2	8.9	**10.2**
Female	4.1	11.4	8.1	4.3	**5.8**
Race/Ethnicity[1]					
White, non-Hispanic	5.2	18.4	13.3	7.2	**9.2**
Black, non-Hispanic	0.7	2.6	2.8	5.7	**4.0**
Hispanic	3.0	7.5	5.2	2.8	**4.1**
Population Density					
Large metro	4.1	13.3	11.1	6.7	**8.0**
Small metro	4.6	15.4	11.1	7.4	**8.8**
Nonmetro	3.9	12.7	8.8	4.8	**6.2**
Region					
Northeast	3.7	14.3	8.9	5.3	**6.8**
North Central	5.2	17.5	12.4	6.8	**8.9**
South	3.5	11.6	8.8	4.7	**6.1**
West	4.9	14.1	13.3	10.3	**10.7**
Adult Education[2]					
Less than high school	N/A	16.1	11.6	4.4	**7.2**
High school graduate	N/A	14.4	10.5	4.5	**7.0**
Some college	N/A	13.3	12.3	10.1	**11.2**
College graduate	N/A	11.6	8.8	7.4	**8.0**
Current Employment[3]					
Full-time	N/A	16.3	11.0	9.8	**10.9**
Part-time	N/A	13.8	11.9	5.3	**8.5**
Unemployed	N/A	18.0	10.6	15.4	**15.1**
Other[4]	N/A	8.5	8.0	1.8	**3.0**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994

N/A: Not applicable

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998

Table 5.9 Percentage Reporting LSD Use in the Past Year, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**2.6**	**3.4**	**0.3**	**0.1**	**0.8**
Gender					
Male	3.0	3.7	0.4	0.1	**0.9**
Female	2.3	3.0	0.2	0.2	**0.7**
Race/Ethnicity[1]					
White, non-Hispanic	3.4	4.6	0.3	0.2	**1.0**
Black, non-Hispanic	0.4	0.4	0.2	*	**0.1**
Hispanic	1.4	1.5	0.4	*	**0.5**
Population Density					
Large metro	2.8	2.9	0.3	0.1	**0.7**
Small metro	2.7	4.2	0.3	*	**1.0**
Nonmetro	2.3	2.6	0.3	0.3	**0.8**
Region					
Northeast	2.1	2.7	*	0.2	**0.7**
North Central	3.3	6.0	0.9	*	**1.3**
South	2.5	2.8	0.1	0.2	**0.7**
West	2.6	2.0	0.3	0.1	**0.6**
Adult Education[2]					
Less than high school	N/A	2.8	*	*	**0.5**
High school graduate	N/A	4.4	0.4	0.1	**0.8**
Some college	N/A	3.2	0.2	*	**0.7**
College graduate	N/A	1.5	0.4	0.3	**0.4**
Current Employment[3]					
Full-time	N/A	3.5	0.3	0.1	**0.6**
Part-time	N/A	3.8	0.3	*	**1.1**
Unemployed	N/A	4.1	0.9	*	**2.2**
Other[4]	N/A	2.5	*	*	**0.3**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

*Low precision; no estimate reported.

[1] The category "other" for race/ethnicity is not included.
[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).
[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).
[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 5.10 Percentage Reporting Heroin Use in Their Lifetime, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**0.4**	**1.1**	**0.9**	**1.3**	**1.1**
Gender					
Male	0.4	1.5	0.9	1.6	**1.3**
Female	0.3	0.7	0.9	0.9	**0.8**
Race/Ethnicity[1]					
White, non-Hispanic	0.4	1.2	0.8	1.1	**1.0**
Black, non-Hispanic	0.1	0.7	1.5	2.9	**1.9**
Hispanic	0.4	1.0	0.7	0.7	**0.7**
Population Density					
Large metro	0.2	1.3	1.0	1.3	**1.1**
Small metro	0.5	1.1	1.0	1.3	**1.1**
Nonmetro	0.4	0.6	0.5	1.2	**0.9**
Region					
Northeast	*	1.7	1.1	1.4	**1.2**
North Central	0.6	0.4	1.1	1.2	**1.0**
South	0.2	1.1	0.7	0.8	**0.8**
West	0.6	1.4	0.9	1.9	**1.5**
Adult Education[2]					
Less than high school	N/A	1.9	1.2	1.3	**1.4**
High school graduate	N/A	0.6	1.3	1.3	**1.2**
Some college	N/A	1.3	1.0	1.7	**1.5**
College graduate	N/A	0.3	0.2	0.8	**0.6**
Current Employment[3]					
Full-time	N/A	1.2	0.7	1.3	**1.2**
Part-time	N/A	0.6	1.6	1.8	**1.4**
Unemployed	N/A	2.8	4.1	3.8	**3.6**
Other[4]	N/A	0.8	0.8	0.8	**0.8**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

*Low precision; no estimate reported.

[1] The category "other" for race/ethnicity is not included.
[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).
[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).
[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 5.11 **Percentage Reporting Heroin Use in Their Lifetime, by Method of Administration, Age Group, and Selected Demographic Characteristics: 1998**

Method of Administration/ Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
A. Smoking Heroin					
Total	**0.3**	**0.7**	**0.4**	**0.8**	**0.6**
Gender					
Male	0.3	0.9	0.4	1.1	0.9
Female	0.2	0.5	0.4	0.4	0.4
Race/Ethnicity[1]					
White, non-Hispanic	0.3	0.7	0.5	0.7	0.6
Black, non-Hispanic	0.1	0.8	0.2	1.8	1.1
Hispanic	0.4	0.5	0.4	0.2	0.3
B. Snorting/Sniffing Heroin					
Total	**0.2**	**0.7**	**0.5**	**1.0**	**0.8**
Gender					
Male	0.3	0.9	0.3	1.4	1.0
Female	0.2	0.4	0.6	0.6	0.6
Race/Ethnicity[1]					
White, non-Hispanic	0.3	0.8	0.4	0.8	0.7
Black, non-Hispanic	*	0.4	0.7	2.4	1.5
Hispanic	0.1	0.5	0.4	0.9	0.6
C. Injecting Heroin					
Total	**0.2**	**0.5**	**0.4**	**0.8**	**0.6**
Gender					
Male	0.3	0.8	0.5	1.0	0.8
Female	0.1	0.2	0.3	0.6	0.4
Race/Ethnicity[1]					
White, non-Hispanic	0.3	0.6	0.4	0.7	0.6
Black, non-Hispanic	*	0.4	0.5	1.5	0.9
Hispanic	0.2	0.5	0.5	0.8	0.6

*Low precision; no estimate reported.

[1] The category "other" for race/ethnicity is not included.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Chapter 6: Nonmedical Use of Psychotherapeutic Drugs

Introduction

Psychotherapeutic drugs, as defined here, include prescription-type (as opposed to over-the-counter) stimulants (including methamphetamine), sedatives, tranquilizers, and analgesics. Stimulants such as Dexedrine and Preludin are often called "uppers" or "speed." Sedatives such as Seconal, Quaaludes, and other "sleeping pills" are sometimes called "downers." Tranquilizers include anxiety-reducing drugs, such as Valium, Klonopin, and Xanax. Analgesics include prescription painkillers, such as Darvon, Demerol, Percodan, and Tylenol (or any other medication) with codeine. Nearly all of these types of drugs are prescribed for specific and legitimate medical reasons, and virtually all of these drugs also are classed as controlled substances because of their potential for abuse.

The focus of the NHSDA is on nonmedical use of such psychotherapeutic drugs, which was defined for respondents as the use of any psychotherapeutic drug "when it was not prescribed for you, or only for the experience or feeling it caused." Nonmedical use of psychotherapeutic drugs can contribute to the development of a number of problems. Abuse of alcohol and psychotherapeutic drugs (including over-the-counter drugs) accounted for about one-third of all drug-related emergency room episodes in 1997 (OAS, 1999e), while stimulants, tranquilizers, and sedatives accounted for about 4% of admissions to specialty treatment facilities in 1996 (OAS, 1998b). Women were about twice as likely as men (12.6% vs. 6.6%) to develop dependence on such psychotropic drugs as sedatives and tranquilizers during their lifetime (Kandel, Warner, & Kessler, 1998).

In 1998, approximately 9% of the U.S. household population aged 12 years or older (about 20.2 million persons) had ever used a psychotherapeutic drug for nonmedical reasons (see Table 2.1). A little less than 3% of the population (about 5.8 million persons) had used a psychotherapeutic drug nonmedically within the past year, and a little more than 1% (about 2.5 million persons) had done so in the past month (Table 2.1).

The percentage of persons in the total population reporting nonmedical psychotherapeutic drug use in 1998 was generally not statistically different from those reporting such use in 1997 (see Tables 2.2 to 2.4). This was true for rates of use of any psychotherapeutic drug, as well as for specific psychotherapeutic drugs (i.e., stimulants, sedatives, tranquilizers, and analgesics) in all time frames. The only significant differences were found among 12 to 17 year olds for whom lifetime and past year use of any psychotherapeutic drug was significantly lower in 1998 than in 1997 (see Tables 2.9 and 2.10). The percentage of the total population using psychotherapeutic drugs in the past year or past month declined slightly throughout the 1990s, and the rates of use in 1998 were significantly lower than those in 1991 (Tables 2.2 and 2.3).

Nonmedical (Illicit) Use of Any Psychotherapeutic Drug (Tables 6.1 to 6.3)

Tables 6.1 to 6.3 show the percentages of persons aged 12 or older who in 1998 reported nonmedical use of any psychotherapeutic drug use in their lifetime, during the past year, and during the past month. With respect to age, the population subgroup at highest risk for past year and past month use was the 18 to 25 year olds. Approximately 6% of respondents in this age group reported past year use, and 3% reported current use.

Any Psychotherapeutic Use, by Age Group and Gender. Among the total population, males were significantly more likely than females to report lifetime, past year, and past month use. These gender differentials, however, were found only among 18 to 25 year olds in all three time periods and among lifetime users aged 35 or older.

Any Psychotherapeutic Use, by Age Group and Race/Ethnicity. Overall and among all of the adult age groups, whites were significantly more likely than blacks and Hispanics to have ever used a psychotherapeutic drug.[1] The only significant associations between race/ethnicity for past year and past month use were found among the 18 to 25 age group, where again whites were more likely than both blacks and Hispanics to have reported any psychotherapeutic use, and among the 12 to 17 age group, where whites were more likely than blacks to report past year use.

Any Psychotherapeutic Use, by Age Group, Population Density, and Region. Only one difference in rates of any psychotherapeutic use was found by population density. Among the total population, residents in small metropolitan areas were more likely to report past month use of any psychotherapeutic than residents of large metropolitan areas.

Additionally, few regional differences reached statistical significance. The most notable differences were between rates of past year use among the total population and the 26 to 34 age group, where residents of the West were more likely than residents of the Northeast and North Central regions to have reported such use.

Any Psychotherapeutic Use, by Age Group, Adult Education, and Adult Employment. Adult educational attainment had a somewhat different relationship to psychotherapeutic use depending on the time frame and the age group. In the total population, college graduates reported lower past year and past month use than those in all other education categories. The only significant difference in past year use among the age groups occurred among those aged 35 or older for whom those with some college were more likely to report use than college graduates and those with less than a high school education. No differences in past month use were found within specific age groups.

Adult employment was significantly associated with lifetime, past year, and past month illicit use of psychotherapeutic drugs, again depending on the time frame and age group. Among the total population, unemployed workers were more likely than workers in all other employment categories to report past year and past month use.

Use of Any Stimulant and of Methamphetamine (Tables 6.4, 6.5, 6.9, and 6.10)

Any Stimulant Use. Table 6.4 shows that approximately 4% of persons aged 12 or older (about 9.6 million persons (see Table 2.1) reported ever using prescription-type stimulants (e.g., Dexedrine, Preludin, and methamphetamine) for nonmedical reasons in their lifetime. Past year stimulant use was reported by 0.7% of the population, or 1.5 million persons, and past month use by 0.3% of persons 12 years of age or older (about 633,000 persons [see Table 2.1]).

Few significant differences were found in past year and past month use of stimulants within demographic groups. Specifically, past year use was more likely among the two younger age groups than among the two older age groups, among males (0.9%) than females (0.5%), among residents of the West (1.1%) than residents of the Northeast (0.3%) and North Central (0.5%) regions, and among the unemployed (1.9%) than those employed part-time (0.6%). Past month use also was significantly more likely among the two younger age groups than the two older age groups, and among the unemployed than among those employed part-time.

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[1] In the interest of readability for this report, "white" is used to indicate "white, non-Hispanic" and "black" to indicate "black, non-Hispanic."

Methamphetamine Use. Methamphetamine is a widely used stimulant that is illegally manufactured, distributed, and abused, often in combination with other drugs, such as cocaine and marijuana. During the past decade, concerns have been voiced that methamphetamine use was spreading. Indeed, the number of methamphetamine/speed emergency department episodes more than tripled between 1990 and 1997 (OAS, 1999e), and admissions to treatment facilities for primary methamphetamine use increased in 31 States between 1993 and 1995 (Greenblatt & Gfroerer, 1998b) . In 1998, methamphetamine had ever been used by 2.1% of the U.S. household population aged 12 or older (Table 6.5). Only 0.6% of youths aged 12 to 17 had ever used methamphetamine, a prevalence significantly lower than for any other age group (2.2% for those aged 35 or older to 2.6% for those aged 18 to 34). The lifetime rate of methamphetamine use among adolescents increased from 1996 (0.6%) to 1997 (1.2%), but then decreased in 1998 (0.6%) (OAS, 1999c, Table 78B). Overall, twice as many males (2.9%) as females (1.4%) had used methamphetamines in their lifetime; significant gender differences were found only among those aged 35 or older. No significant gender differences were found among the three younger age groups.

In the total sample and among adults aged 18 to 34, lifetime methamphetamine use was more prevalent among whites than among both blacks and Hispanics. For adults aged 35 or older, whites were more likely to report use than Hispanics. In the total sample, lifetime methamphetamine use was more likely among residents of the West (3.4%) than residents of the South (1.3%) and North Central (2.1%) regions.

Adult educational attainment had a somewhat different relationship to methamphetamine use depending on age group. In the total population and the 35 or older age group, use was more likely among those with some college than those with a high school education or less. Among adults aged 18 to 34, college graduates reported lower rates of use than those in all other educational categories.

Use of Sedatives (Tables 6.6, 6.9, and 6.10)

Tables 6.6, 6.9, and 6.10 show that in 1998, 2.1% of persons aged 12 years or older (about 4.6 million persons) had ever used prescription-type sedatives (e.g., Seconal, Quaaludes, and prescription-type sleeping pills) for nonmedical reasons, 0.2% had used sedatives for nonmedical reasons in the past year (522,000 persons), and 0.1% had done so in the past month (210,000 persons [see Table 2.1]). Lifetime sedative use was most common among those aged 26 or older; however, past year use was significantly lower among those aged 26 or older than among adolescents and young adults. No significant differences between gender, racial/ethnic categories, population density categories, region, education level, or employment categories were found for past year or past month use.

Use of Tranquilizers (Tables 6.7, 6.9, and 6.10)

Tables 6.7, 6.9, and 6.10 show that in 1998, 3.5% of persons aged 12 or older (about 7.7 million persons) had ever used prescription-type tranquilizers (e.g., Valium, Klonopin, and Xanax) for nonmedical reasons, 0.9% had used tranquilizers in the past year (1.9 million persons), and 0.3% had done so in the past month (655,000 persons [see Table 2.1]). Few significant differences were found by demographic characteristics for past year and past month tranquilizer use. Specifically, past year use was more likely among those aged 18 to 25 (2.7%) than those in all other age groups (0.4% to 1.1%) and among males (1.1%) than females (0.7%); past month use was more likely among 18 to 25 year olds (1%) than among adolescents (0.3%) and adults aged 35 or older (0.1%).

Use of Analgesics (Tables 6.8 to 6.10)

Tables 6.8 to 6.10 show that in 1998, 5.3% of persons aged 12 or older (about 11.6 million persons had used prescription-type analgesics (e.g., Darvon, Demerol, Percodan, and Tylenol [or any medication] with codeine) for nonmedical reasons in their lifetime, 1.9% had used analgesics in the past year (4.1 million persons), and 0.8% had done so in the past month (1.7 million persons [see Table 2.1]). Past year and past month use were more likely among those aged 12 to 25 than the two older age groups. Although males (2.3%) were more likely than females (1.5%) to report past year use, there were no significant differences by gender for past month use. Rates of past year and past month use were higher among residents of small metropolitan areas than those of nonmetropolitan areas, and they were lower among college graduates than those in all other education categories.

Discussion

Although most people use psychotherapeutic medications properly, many do not. They might take them without a doctor's prescription, use more than prescribed, or take them for reasons other than those for which the drugs were prescribed. In 1998, more than 20 million people older than 12 years reported having used at some time in their lives one or more psychotherapeutic drugs (stimulants, sedatives, tranquilizers, and analgesics generally available through prescription) for nonmedical purposes. Almost 6 million had done so in the past year and 2.5 million in the past month. Past year and past month nonmedical use of psychotherapeutics declined slightly during the 1990s.

Rates of lifetime, past year, and past month nonmedical use of psychotherapeutic drugs differed between many subgroups defined by the demographic characteristics of age, race/ethnicity, gender, geography, education, and employment status. With few exceptions, young and middle adults, males, and whites were more likely than their counterparts in other demographic subgroups to report the nonmedical use of psychotherapeutic drugs.

Analgesics were the type of psychotherapeutic drug most commonly used, overall and by every age group. For example, among those aged 18 to 25, the rate of past year analgesic use (4.4%) was about twice that of stimulants (1.9%) and tranquilizers (2.7%), and almost 9 times that of sedatives (0.5%).

Table 6.1 Percentage Reporting Nonmedical Use of Any Prescription-Type Psychotherapeutic in Their Lifetime, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				
	12-17	18-25	26-34	35+	Total
Total	**5.6**	**11.4**	**11.5**	8.8	9.2
Gender					
Male	5.1	13.8	12.8	11.1	**11.1**
Female	6.1	8.9	10.1	6.9	7.6
Race/Ethnicity[1]					
White, non-Hispanic	6.2	13.7	13.5	9.6	**10.3**
Black, non-Hispanic	4.3	7.0	7.0	6.9	**6.6**
Hispanic	5.2	7.6	6.4	6.0	**6.3**
Population Density					
Large metro	5.1	11.2	10.7	9.6	**9.5**
Small metro	6.6	12.9	12.3	9.5	**10.1**
Nonmetro	5.1	8.7	11.9	6.3	**7.2**
Region					
Northeast	5.6	9.4	11.2	10.2	**9.8**
North Central	5.1	12.2	10.2	6.9	**7.9**
South	6.0	10.9	11.2	7.8	**8.5**
West	5.6	12.9	13.3	11.5	**11.4**
Adult Education[2]					
Less than high school	N/A	13.9	13.5	6.4	**8.5**
High school graduate	N/A	9.9	13.3	6.2	**8.0**
Some college	N/A	12.0	12.7	12.8	**12.6**
College graduate	N/A	9.4	7.3	10.5	**9.8**
Current Employment[3]					
Full-time	N/A	12.7	11.9	11.6	**11.8**
Part-time	N/A	11.0	11.5	8.5	**9.6**
Unemployed	N/A	14.5	11.7	13.7	**13.5**
Other[4]	N/A	8.1	8.9	4.9	**5.5**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 6.2 Percentage Reporting Nonmedical Use of Any Prescription-Type Psychotherapeutic in the Past Year, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**3.7**	**6.4**	**3.1**	**1.5**	**2.6**
Gender					
Male	3.4	8.3	3.6	1.9	**3.2**
Female	4.0	4.4	2.6	1.3	**2.1**
Race/Ethnicity[1]					
White, non-Hispanic	4.3	8.1	3.5	1.5	**2.8**
Black, non-Hispanic	1.9	2.8	2.5	1.7	**2.1**
Hispanic	3.4	3.5	2.1	2.3	**2.6**
Population Density					
Large metro	3.3	5.7	3.0	1.7	**2.6**
Small metro	4.4	7.5	3.5	1.7	**3.1**
Nonmetro	3.3	5.5	2.8	1.1	**2.1**
Region					
Northeast	3.5	5.1	2.2	1.1	**2.0**
North Central	3.7	6.7	2.6	1.2	**2.4**
South	3.8	6.0	2.9	1.7	**2.7**
West	3.7	7.6	4.8	2.1	**3.5**
Adult Education[2]					
Less than high school	N/A	8.3	3.9	1.0	**2.6**
High school graduate	N/A	5.1	3.9	1.6	**2.5**
Some college	N/A	7.0	2.9	2.5	**3.5**
College graduate	N/A	5.3	2.1	1.0	**1.5**
Current Employment[3]					
Full-time	N/A	6.9	3.0	1.9	**2.8**
Part-time	N/A	6.8	4.6	1.0	**3.1**
Unemployed	N/A	9.9	3.8	4.0	**5.6**
Other[4]	N/A	3.9	2.5	1.0	**1.4**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 6.3 Percentage Reporting Nonmedical Use of Any Prescription-Type Psychotherapeutic in the Past Month, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**1.7**	**2.7**	**1.3**	**0.7**	**1.1**
Gender					
Male	1.6	3.6	1.4	0.9	**1.4**
Female	1.7	1.7	1.2	0.5	**0.9**
Race/Ethnicity[1]					
White, non-Hispanic	1.9	3.2	1.4	0.6	**1.2**
Black, non-Hispanic	1.1	1.8	1.3	0.9	**1.1**
Hispanic	1.4	1.6	1.0	0.8	**1.1**
Population Density					
Large metro	1.6	2.1	1.1	0.5	**0.9**
Small metro	2.2	3.1	1.7	0.9	**1.5**
Nonmetro	1.1	2.9	1.3	0.5	**1.0**
Region					
Northeast	2.2	1.9	1.0	0.4	**0.9**
North Central	1.8	2.7	1.1	0.5	**1.0**
South	1.1	3.1	1.3	0.6	**1.1**
West	2.0	2.6	1.9	1.2	**1.6**
Adult Education[2]					
Less than high school	N/A	3.8	2.6	0.6	**1.4**
High school graduate	N/A	2.0	1.6	0.6	**1.0**
Some college	N/A	3.0	1.0	1.2	**1.5**
College graduate	N/A	1.5	0.8	0.3	**0.5**
Current Employment[3]					
Full-time	N/A	3.0	1.3	0.8	**1.2**
Part-time	N/A	2.2	2.4	0.4	**1.1**
Unemployed	N/A	4.3	1.9	2.3	**2.8**
Other[4]	N/A	2.0	0.7	0.5	**0.7**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 6.4 Percentage Reporting Nonmedical Use of Any Prescription-Type Stimulant in Their Lifetime, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**1.7**	**3.9**	**5.1**	**4.8**	**4.4**
Gender					
Male	1.8	4.3	5.6	6.7	**5.7**
Female	1.7	3.6	4.6	3.1	**3.2**
Race/Ethnicity[1]					
White, non-Hispanic	1.8	4.7	6.2	5.3	**5.0**
Black, non-Hispanic	1.7	2.1	2.3	3.6	**2.9**
Hispanic	1.6	3.0	2.7	2.7	**2.6**
Population Density					
Large metro	1.5	3.3	5.0	4.8	**4.3**
Small metro	2.3	5.2	5.3	5.6	**5.1**
Nonmetro	1.1	2.7	5.0	3.5	**3.4**
Region					
Northeast	2.1	1.6	4.6	5.7	**4.7**
North Central	1.7	4.4	5.1	3.8	**3.8**
South	1.2	3.4	4.4	3.6	**3.5**
West	2.3	6.2	6.7	6.9	**6.3**
Adult Education[2]					
Less than high school	N/A	5.2	5.6	2.1	**3.0**
High school graduate	N/A	3.4	5.3	2.7	**3.3**
Some college	N/A	4.3	6.6	7.6	**6.8**
College graduate	N/A	2.0	3.2	6.7	**5.7**
Current Employment[3]					
Full-time	N/A	4.0	5.3	7.0	**6.2**
Part-time	N/A	4.2	5.0	4.4	**4.4**
Unemployed	N/A	5.5	4.2	8.0	**6.5**
Other[4]	N/A	3.1	4.3	1.7	**2.1**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 6.5 Percentage Reporting Nonmedical Use of Any Prescription-Type Methamphetamine in Their Lifetime, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**0.6**	**2.6**	**2.6**	**2.2**	**2.1**
Gender					
Male	0.5	2.6	3.0	3.4	**2.9**
Female	0.6	2.5	2.1	1.1	**1.4**
Race/Ethnicity[1]					
White, non-Hispanic	0.7	3.2	3.2	2.5	**2.5**
Black, non-Hispanic	*	0.9	0.6	1.5	**1.0**
Hispanic	0.6	1.8	1.6	0.9	**1.2**
Population Density					
Large metro	0.6	2.0	2.8	2.3	**2.2**
Small metro	0.7	3.5	2.6	2.4	**2.4**
Nonmetro	0.3	1.9	1.9	1.7	**1.6**
Region					
Northeast	*	*	1.8	3.2	**2.3**
North Central	0.5	2.6	2.7	2.1	**2.1**
South	0.5	2.3	1.2	1.2	**1.3**
West	1.1	5.1	5.1	3.0	**3.4**
Adult Education[2]					
Less than high school	N/A	3.6	3.2	0.5	**1.3**
High school graduate	N/A	2.5	2.8	1.4	**1.8**
Some college	N/A	2.7	3.6	3.6	**3.4**
College graduate	N/A	0.8	1.0	3.2	**2.6**
Current Employment[3]					
Full-time	N/A	2.9	2.7	3.3	**3.1**
Part-time	N/A	2.3	2.7	2.0	**2.2**
Unemployed	N/A	3.8	2.7	6.2	**4.8**
Other[4]	N/A	1.9	1.7	0.5	**0.7**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

*Low precision; no estimate reported.

[1] The category "other" for race/ethnicity is not included.
[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).
[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).
[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 6.6 Percentage Reporting Nonmedical Use of Any Prescription-Type Sedative in Their Lifetime, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**1.0**	**1.3**	**2.0**	**2.5**	**2.1**
Gender					
Male	0.8	1.4	2.2	3.5	**2.7**
Female	1.1	1.1	1.8	1.7	**1.6**
Race/Ethnicity[1]					
White, non-Hispanic	1.0	1.4	2.3	2.6	**2.3**
Black, non-Hispanic	1.5	0.9	1.0	2.5	**1.9**
Hispanic	0.7	1.4	1.5	1.9	**1.5**
Population Density					
Large metro	1.2	1.0	1.6	2.5	**2.0**
Small metro	0.6	1.5	2.5	2.8	**2.3**
Nonmetro	1.3	1.1	1.9	2.4	**2.0**
Region					
Northeast	1.3	0.8	3.3	3.3	**2.8**
North Central	0.9	1.5	1.3	1.7	**1.6**
South	1.0	1.6	2.1	1.7	**1.7**
West	0.7	0.8	1.3	4.1	**2.8**
Adult Education[2]					
Less than high school	N/A	1.3	1.9	2.2	**2.0**
High school graduate	N/A	1.3	1.4	1.8	**1.7**
Some college	N/A	1.2	3.3	3.3	**2.9**
College graduate	N/A	0.9	1.4	3.1	**2.6**
Current Employment[3]					
Full-time	N/A	1.1	1.9	3.4	**2.8**
Part-time	N/A	0.6	1.5	2.3	**1.7**
Unemployed	N/A	1.3	1.9	4.0	**2.8**
Other[4]	N/A	2.1	2.6	1.3	**1.5**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 6.7 Percentage Reporting Nonmedical Use of Any Prescription-Type Tranquilizer in Their Lifetime, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**1.7**	**5.1**	**4.6**	**3.2**	**3.5**
Gender					
Male	1.9	5.9	5.0	4.2	**4.3**
Female	1.5	4.2	4.3	2.4	**2.8**
Race/Ethnicity[1]					
White, non-Hispanic	1.9	6.4	5.4	3.4	**3.9**
Black, non-Hispanic	1.6	2.6	2.8	3.4	**2.9**
Hispanic	1.4	2.7	2.3	2.6	**2.4**
Population Density					
Large metro	1.2	4.9	3.9	3.3	**3.4**
Small metro	2.0	6.1	5.5	3.9	**4.2**
Nonmetro	2.2	3.6	4.9	2.1	**2.7**
Region					
Northeast	1.7	3.7	5.6	4.2	**4.1**
North Central	1.1	4.3	2.9	1.7	**2.2**
South	2.5	6.9	5.0	3.1	**3.8**
West	1.2	4.1	5.0	4.2	**4.0**
Adult Education[2]					
Less than high school	N/A	5.5	4.9	3.2	**3.8**
High school graduate	N/A	4.9	5.8	2.4	**3.3**
Some college	N/A	4.7	4.8	4.0	**4.3**
College graduate	N/A	6.4	3.1	3.7	**3.7**
Current Employment[3]					
Full-time	N/A	6.1	4.8	4.1	**4.5**
Part-time	N/A	3.6	6.0	3.1	**3.6**
Unemployed	N/A	7.0	5.2	5.6	**5.9**
Other[4]	N/A	3.8	2.8	2.0	**2.2**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 6.8 Percentage Reporting Nonmedical Use of Any Prescription-Type Analgesic in Their Lifetime, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**4.6**	**8.2**	**6.6**	**4.5**	**5.3**
Gender					
Male	4.4	10.5	8.0	5.2	**6.3**
Female	4.8	5.9	5.2	3.8	**4.4**
Race/Ethnicity[1]					
White, non-Hispanic	5.1	9.8	7.3	4.7	**5.7**
Black, non-Hispanic	3.7	5.6	5.3	4.5	**4.7**
Hispanic	4.1	5.6	3.7	3.4	**4.0**
Population Density					
Large metro	4.4	8.2	6.2	4.9	**5.5**
Small metro	5.4	9.5	6.5	4.8	**5.8**
Nonmetro	3.7	5.8	7.6	3.3	**4.3**
Region					
Northeast	4.2	8.3	4.3	5.3	**5.4**
North Central	4.7	8.0	6.2	3.7	**4.8**
South	4.8	7.8	7.0	3.7	**4.9**
West	4.5	9.2	8.1	5.9	**6.5**
Adult Education[2]					
Less than high school	N/A	11.2	9.0	3.5	**5.4**
High school graduate	N/A	6.8	7.9	3.6	**4.8**
Some college	N/A	8.4	6.2	7.2	**7.2**
College graduate	N/A	7.0	4.2	4.0	**4.2**
Current Employment[3]					
Full-time	N/A	9.5	7.0	5.7	**6.5**
Part-time	N/A	7.8	6.4	5.0	**5.9**
Unemployed	N/A	10.5	8.8	5.5	**7.6**
Other[4]	N/A	5.5	3.8	2.6	**3.0**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A Not applicable.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 6.9 Percentage Reporting Nonmedical Use of Specific Types of Psychotherapeutic Drugs in the Past Year, by Demographic Characteristics: 1998

Demographic Characteristic	Type of Psychotherapeutic Drug			
	Stimulants	Sedatives	Tranquilizers	Analgesics
Total	**0.7**	**0.2**	**0.9**	**1.9**
Age Group in Years				
12-17	1.2	0.6	1.1	3.1
18-25	1.9	0.5	2.7	4.4
26-34	0.6	0.1	1.1	2.0
35+	0.4	0.2	0.4	1.1
Gender				
Male	0.9	0.3	1.1	2.3
Female	0.5	0.2	0.7	1.5
Race/Ethnicity[1]				
White, non-Hispanic	0.7	0.2	1.0	2.0
Black, non-Hispanic	0.6	0.4	0.6	1.8
Hispanic	0.8	0.4	0.7	1.7
Population Density				
Large metro	0.6	0.2	0.8	1.7
Small metro	0.8	0.3	1.1	2.3
Nonmetro	0.6	0.3	0.7	1.4
Region				
Northeast	0.3	0.1	0.7	1.5
North Central	0.5	0.1	0.6	1.7
South	0.7	0.3	1.1	1.8
West	1.1	0.3	0.9	2.5
Adult Education[2]				
Less than high school	0.7	0.2	0.8	2.0
High school graduate	0.6	0.3	1.0	1.8
Some college	0.9	0.2	1.0	2.4
College graduate	0.4	0.1	0.7	0.8
Current Employment[3]				
Full-time	0.7	0.2	1.0	1.9
Part-time	0.6	0.1	0.7	2.1
Unemployed	1.9	0.8	2.0	3.9
Other[4]	0.3	0.2	0.5	1.0

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 6.10 Percentage Reporting Nonmedical Use of Specific Types of Psychotherapeutic Drugs in the Past Month, by Demographic Characteristics: 1998

Demographic Characteristic	Type of Psychotherapeutic Drug			
	Stimulants	Sedatives	Tranquilizers	Analgesics
Total	**0.3**	**0.1**	**0.3**	**0.8**
Age Group in Years				
12-17	0.6	0.2	0.3	1.3
18-25	0.6	0.2	1.0	1.8
26-34	0.2	*	0.5	0.9
35+	0.2	0.1	0.1	0.5
Gender				
Male	0.4	0.1	0.4	0.9
Female	0.2	0.1	0.2	0.6
Race/Ethnicity[1]				
White, non-Hispanic	0.3	0.1	0.3	0.8
Black, non-Hispanic	0.2	0.2	0.1	0.9
Hispanic	0.4	0.1	0.3	0.7
Population Density				
Large metro	0.2	0.1	0.2	0.7
Small metro	0.4	0.1	0.5	1.1
Nonmetro	0.4	0.1	0.3	0.6
Region				
Northeast	0.1	0.1	0.2	0.6
North Central	0.2	0.1	0.2	0.7
South	0.2	0.1	0.3	0.8
West	0.6	0.2	0.4	1.0
Adult Education[2]				
Less than high school	0.3	*	0.2	1.1
High school graduate	0.2	0.1	0.4	0.7
Some college	0.4	0.1	0.4	1.0
College graduate	0.1	*	0.1	0.3
Current Employment[3]				
Full-time	0.3	0.1	0.3	0.8
Part-time	0.2	*	0.3	0.8
Unemployed	1.2	0.5	1.1	1.5
Other[4]	0.1	0.1	0.2	0.4

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

*Low precision; no estimate reported.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Chapter 7: Alcohol

Introduction

Since the NHSDA series began, alcohol has been reported as the most commonly used psychoactive substance. Approximately 178 million (81%) of the 218 million people aged 12 or older represented in 1998 reported alcohol use in their lifetime; an estimated 140 million persons (64%) reported use in the past year; and 113 million persons (52%) reported current use (in the past month) (see Table 2.1). As shown in the Chapter 2 tables and as evidenced in other studies, the percentage of persons reporting alcohol use has remained relatively stable since the early 1990s (Bray et al., 1999b; Johnston et al., 1998, 1999).

Alcohol occupies a unique position in American life and culture. Virtually all adults in the U.S. household population (from 83% of those aged 18 to 25 to 88% of those aged 26 to 34) have used alcohol at least once in their lifetime (see Table 7.1). Based on the fact that beverage alcohol may be legally used by adults aged 21 or older, such a finding is not unexpected and is consistent with results from earlier NHSDAs and from other surveys (Bray et al., 1999b; Wilsnack & Wilsnack, 1991). The high prevalence of use among the young adults aged 18 to 20 (78% lifetime, 69% past year, and 54% past month, see Table 7.4), however, suggests that laws prohibiting the purchase, possession, and use of alcohol by young people in this age range may not be very effective. Furthermore, the high prevalence of use among youths aged 12 to 17 (37% lifetime, 32% past year, and 19% past month) supports this conclusion.

In the following sections of this chapter, more detailed information is provided about the prevalence and levels of alcohol use by Americans in 1998.[1]

Alcohol Use, by Age Group (Tables 7.1 to 7.4)

Because legal use of alcohol is restricted to adults aged 21 or older, it is not surprising that it is used more by adults than by youths. Levels of lifetime, past year, and past month alcohol use in 1998 were two or more times higher among adults than among those aged 12 to 17 (see Tables 7.1 through 7.3). Although past year use and past month alcohol use were highest among 18 to 34 year olds, adults aged 35 or older still reported about two times the rate of use as adolescents. Nevertheless, even though alcohol use is illegal for 12 to 17 year olds, significant percentages of adolescents admitted to using alcohol, including 19% (4.3 million) within the past month (OAS, 1999b, Table 13A).

Table 7.4 presents a more detailed age analysis for alcohol use. Rates of current alcohol use rose for each age group until around age 21 to 25, after which the rates of use leveled off. The largest age gradients in the prevalence of alcohol use occurred among youths in their teenage years. In particular, only about 10% of youths aged 12 or 13 had used alcohol in the past year. For those aged 14 or 15, the prevalence tripled (34%), and by ages 16 and 17, more than half (53%) had used alcohol in the past year. Similarly, the rate of past month use quadrupled from those aged 12 or 13 (5%) to those aged 14 or 15 (21%), and more than doubled for those aged 18 to 20 (54%). As shown in Table 10.4, this phenomenon reflects an age-of-onset effect: First-time use of alcohol occurs most often at these ages (Chen & Kandel, 1995; Dewit, Offord, & Wong, 1997; Kandel, Yamaguchi, & Chen, 1992; Warren et al., 1997).

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[1] Estimates for "binge" and heavy alcohol use presented in this chapter differ from corresponding estimates in Chapter 2 because of different treatment of missing values. In the Chapter 2 tables, respondents who had a missing response to the item "In the past 30 days, on how many days did you have five or more drinks on the same occasion" were excluded from the analysis. In the Chapter 7 tables, those who had a missing response on this days of use item were essentially treated as nonbinge or nonheavy users.

Alcohol Use, by Age Group and Gender (Tables 7.1 to 7.3)

Alcohol use in the lifetime, past year, and past month was generally more prevalent among males than females, except among the adolescent age group (i.e., those aged 12 to 17) (see Tables 7.1 to 7.3). There were no significant differences among adolescents by gender in rates of lifetime, past year, or past month use. These findings are consistent with earlier analyses of the NHSDA data reported for the OAS (Su, Larison, Ghadialy, Johnson, & Rohde, 1997).

Alcohol Use, by Age Group and Race/Ethnicity (Tables 7.1 to 7.3)

Among all of the adult age groups, whites were more likely than blacks and Hispanics to report lifetime, past year, and past month alcohol use (see Tables 7.1 to 7.3).[2] In addition, rates of past year and past month use were more likely among Hispanics than blacks for those aged 35 or older. Among adolescents, whites and Hispanics were more likely than blacks to report lifetime, past year, and past month use.

Alcohol Use, by Age Group, Population Density, and Region (Tables 7.1 to 7.3)

Overall, rates of past year and past month alcohol use were higher in large and small metropolitan areas compared with the rates in nonmetropolitan areas. This pattern was found only among adults aged 35 or older, however. No significant differences were found in past year and past month use by population density among the other three age groups.

Overall, residents of the South reported significantly lower rates of past year and past month alcohol use than those residing in all other regions. Among youths, past year use in the North Central region was more prevalent than in either the West or the South. For persons aged 18 or older, rates of past year and past month alcohol use were generally highest among residents of the North Central region.

Alcohol Use, by Age Group, Adult Education, and Current Employment (Tables 7.1 to 7.3)

In contrast with the illicit drug use measures assessed in this survey, past year and past month alcohol use were positively associated with educational attainment. In general, adults who had attended or graduated from college reported greater lifetime, past year, and past month use than adults who had not attended college. For example, those who graduated from college were more likely than those who did not graduate from high school to report past month use (66% vs. 40%, respectively).

Rates of alcohol use also varied across current employment categories. Overall and in most age groups, use in the lifetime and past month was most prevalent among persons employed full-time.

Alcohol Use, by Age Group, Race/Ethnicity, and Gender (Tables 7.5)

Table 7.5 allows a further elaboration of gender and racial/ethnic differences in alcohol use. Among all three of the adult age groups, the prevalence of past month alcohol use was higher for males than for females within every racial/ethnic group; there were no significant differences for youth aged 12 to 17. Use also was higher among males than females for lifetime and past year use among the adult age groups, excluding the differences in the 26 to 34 age group between black males and females in the lifetime and white males and females in the past year.

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[2] In the interest of readability for this report, "white" is used to indicate "white, non-Hispanic" and "black" to indicate "black, non-Hispanic."

Overall, white males reported significantly higher rates of lifetime and past month alcohol use than black and Hispanic males. Except for the youngest age group, white females reported higher levels of lifetime, past year, and past month alcohol use than black and Hispanic females. Additionally, rates of lifetime, past year, and past month use among the two oldest age groups were significantly higher among black females than among Hispanic females.

Frequency of Alcohol Use (Table 7.6)

Table 7.6 indicates that approximately 7% of those aged 12 or older represented in this table were daily or almost daily drinkers. That is, they consumed alcohol on 20 or more days in the past month. Males were more than twice as likely as females to drink daily or almost daily in the past month. Daily alcohol use was more than twice as likely among adults aged 35 or older compared with those aged 18 to 34; a small percentage of youths aged 12 to 17 (only 0.7%) reported daily or almost daily drinking. Daily drinking was more than twice as prevalent among whites as among either blacks or Hispanics, whose frequencies of daily drinking were about equal. Daily drinking did not differ by population density, region, or current employment. With regard to adult education, the lowest rate of daily drinking occurred among persons who had not completed high school, and college graduates were two times more likely than those with a high school education to use alcohol daily or almost daily.

"Binge" and Heavy Alcohol Use (Table 7.7 and 7.8)

"Binge" Alcohol Use. Drinking five or more drinks on the same occasion on at least 1 day in the past 30 days is defined as "binge" drinking. In Table 7.7, the prevalence of "binge" drinking in the past month is presented. Approximately 15% of the total population of household residents aged 12 or older reported at least one episode of "binge" drinking in the past 30 days. Young adults aged 18 to 25 (31%) were more likely than all other age groups to have engaged in "binge" drinking, and the rate of "binge" drinking increased significantly between 1997 and 1998 among this age group (see Table 2.8). Close to half of males aged 18 to 25 (42%) reported at least one episode of binge drinking in the past month.

Overall and in every adult age group, males were more likely than females to report "binge" drinking; the ratio was two or three to one. Overall and in the two youngest age groups, whites and Hispanics were more likely than blacks to have "binged" on alcohol in the past month. Among those aged 12 to 25, the prevalence of "binge" drinking among whites also was significantly higher than among Hispanics.

Rates of "binge" drinking varied little by population density or region. The only significant difference was that among those aged 18 to 25, "binge" drinking was significantly higher among those in small metropolitan areas (37%) compared with those in large and nonmetropolitan areas (26% and 28%, respectively). Overall and for young adults aged 18 to 25, "binge" drinking was more prevalent in the North Central region than in all of the other regions; in the 26 to 34 age group, "binge" drinking also was more prevalent in the North Central region than in the South or West.

Rates of "binge" drinking also varied little by educational attainment. The only significant differences were that among those aged 18 to 25, those with some college education and college graduates were more likely to report such behaviors than those with a high school diploma or less. In the total population, rates of "binge" drinking differed significantly across all categories of current employment, with the exception of the comparison between those employed full-time and those who were unemployed. Among the 18 to 25 age group, those employed full-time were more likely to report "binge" drinking than those in all other employment categories.

Heavy Alcohol Use. Another measure of the quantity and frequency of potentially problematic alcohol use, called "heavy alcohol use," is defined as drinking five or more drinks on the same occasion on each of 5 or more days in the past month. Using alcohol at or in excess of this level for an extended period is likely to be accompanied or followed by many negative consequences. Persons classified as heavy alcohol users according to this measure also were included among the category of "binge" drinkers, although not all "binge" drinkers qualify as heavy drinkers.

Table 7.8 indicates that rates of heavy drinking in the past month were highest among young adults aged 18 to 25 (13%), whose rates were two to four times higher than those for other age groups. Overall, 6% were heavy drinkers. The rates of heavy alcohol use increased significantly between 1997 and 1998 only among the young adult age group (see Table 2.8).

Overall and for every age group, males were more likely than females to report heavy drinking. Heavy alcohol use, however, increased among 18- to 25-year-old females from 4.3% in 1997 to 7.7% in 1998 (OAS, 1999a). For the two youngest age groups, whites and Hispanics were more likely to report heavy drinking than were blacks; additionally, among young adults aged 18 to 25, whites reported significantly higher rates of heavy drinking than Hispanics.

Rates of heavy alcohol use varied little among the remaining demographic categories. In the 18 to 25 age group, those in small metropolitan areas were more likely than those in large metropolitan areas to report heavy alcohol use. Overall, among 18 to 25 year olds, and among those 35 or older, residents of the North Central region were more likely than residents of the Northeast and West to report such use. Overall, those with a high school education or less, and those with some college were more likely than college graduates to report heavy alcohol use; among the two oldest age groups, college graduates were less likely to report such use than were those with less than a high school education.

Past Month Alcohol Use Among Minors (Table 7.9)

Another view of alcohol use is provided in Table 7.9 where the prevalence of alcohol use in the past month is shown separately for minors younger than 21 and for adults aged 21 or older. Overall and for most demographic subgroups, the prevalence of any current alcohol use was lower among minors than among adults aged 21 or older. Nevertheless, rates of alcohol use among persons younger than 21 were substantial, with almost one-third of this population reporting past month use, 15% reporting "binge" use, and 7% reporting heavy use.

Table 7.9 also provides estimates of the prevalence of "binge" drinking in the past month by persons younger than 21 compared with those aged 21 or older. Notably, almost all rates of "binge" drinking among minors under age 21 were roughly equal to, and for some demographic subgroups much higher than, the rates reported by adults aged 21 or older. For example, the prevalence of "binge" drinking was higher among females under age 21 than among older women. For every level of education attained by persons 18 years old or older, "binge" drinking was approximately twice as prevalent among those 18 to 20 as among those who had reached the age of majority. Similarly, "binge" drinking was from one and a half to over four times more prevalent among those aged 18 to 20 employed either full-time or part-time or classified in the "other" employment category than among adults aged 21 or older in these employment categories, but it was equally prevalent among unemployed persons.

Heavy alcohol use also was equally or more prevalent among minors than among adults aged 21 or older, overall and for virtually all demographic subgroups. As with "binge" use, females under age 21 reported about double the rate of heavy alcohol use as adult women. About the same proportions of minors and adults reported drinking heavily within each racial/ethnic group, area of more or less dense population, and region. Among categories of educational achievement and current employment, however, minors aged 18 to 20 were far more likely than persons aged 21 or older to have used alcohol heavily. The only exception to this last finding was that the rates of heavy drinking among unemployed minors aged 18 to 20 and adults aged 21 or older were about the same.

Alcohol Use and Use of Other Drugs (Tables 7.10 to 7.12)

Table 7.10 presents the cross-classification of alcohol use and other drug use reported by the respondents. As past NHSDA reports and other literature have indicated, current use of alcohol was strongly associated with use of other legal and illegal drugs for each age group (Kandel & Yamaguchi, 1993; Yamaguchi & Kandel, 1984a, 1984b).[3] Overall, nearly 40% of current alcohol users also used cigarettes in the past month, compared with 18% of current alcohol abstainers. Current alcohol users were about five times more likely than nonusers to report past month use of any illicit drug (11% vs. 2%).

These associations were especially pronounced among younger drinkers. For example, past month alcohol users aged 12 to 17 and those aged 18 to 25 were about 13 and 8 times, respectively, as likely as nonusers within their age groups to report past month illicit drug use. The differences were not as great among the 26 to 34 age group, but they still represent a well-established association between alcohol use and other drug use.

Tables 7.11 and 7.12 show similar and even stronger patterns of the relationship between "binge" and heavy alcohol use and other drug use. For the total population, "binge" alcohol users were seven times as likely as those who had not "binged" to have used an illicit drug in the past month (22% vs. 3%, respectively). Heavy drinkers were six times as likely as those not reporting heavy use to report illicit drug use in the past month (30% vs. 5%, respectively). About two out of three adolescents who reported past month heavy alcohol use also used an illicit drug in the past month, most often marijuana.

Rates of use of certain combinations of "binge" and heavy alcohol use with other drugs have increased in recent years. Specifically, 12- to 17-year-old heavy alcohol users were more likely to report any past month illicit drug use in 1998 (69%) than in 1995 (55%) (OAS, 1997). Among those aged 18 to 25, heavy alcohol drinkers were more likely to report any past month illicit drug use in 1998 than in 1995 (46% vs. 38%), as well as past month cigarette use (72% vs. 62%) (OAS, 1997).

Discussion

Alcohol continued to be the psychoactive substance most commonly used by household residents aged 12 or older in the United States. Both the prevalence and frequency of alcohol use were greatest among males. In addition, respondents aged 18 to 34 tended to report higher rates of past year and current alcohol use than those in younger and older age groups. More generally, rates of past month alcohol use, including "binge" and heavy use, have been fairly constant in recent years, with the exception of higher rates of "binge" and heavy use in 1998 than in 1997 among young adults aged 18 to 25 (see Table 2.8).

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[3] Also see, for example, OAS (1996a, Table 7.10) for the 1994 NHSDA; OAS (1997, Table 7.10) for the 1995 NHSDA; OAS (1998a, Tables 7.10 and 7.12) for the 1996 NHSDA; and OAS (1999a, Table 7.10) for the 1997 NHSDA.

The findings presented in this chapter illustrate some important differences in user profiles between any use of alcohol and "binge" or heavy use. Although youths and those under age 21 were less likely than older persons to report any use of alcohol, they were much more likely to report "binge" or heavy drinking. Among adults, educational attainment also showed a very different relationship with any use than with "binge" or heavy use. Whereas college-educated adults were much more likely to use alcohol in the past month, and even to use it on a daily basis, there were no such differences for "binge" or heavy use.

Finally, very high prevalences of illicit drug use among drinkers and especially heavier drinkers were found for the total population and all age groups. Even cigarette use, which declined in recent years in the total population, was reported by a larger percentage of "binge" and heavy drinkers overall and in every age group than by current users of alcohol at lesser levels. Among heavy drinkers, about one-quarter of those aged 26 to 34 used an illicit drug in the past month. More alarming, almost half the young adult heavy drinkers aged 18 to 25 reported using an illicit drug in the past 30 days, and 69% of the youths aged 12 to 17 who were heavy drinkers also reported past month use of any illicit drug, most often marijuana. Finally, although the rate of heavy alcohol use among 12 to 17 year olds has remained relatively constant since 1995, the percentage of teenage heavy alcohol users who also used any illicit drug in the past month increased by 25% between 1995 and 1998 (from 55% to 69%) (OAS, 1997).

Table 7.1 Percentage Reporting Alcohol Use in Their Lifetime, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years 12-17	18-25	26-34	35+	Total
Total	**37.3**	**83.2**	**88.2**	**86.6**	**81.3**
Gender					
Male	36.6	87.2	90.9	92.2	**85.2**
Female	38.1	79.2	85.5	81.6	**77.6**
Race/Ethnicity[1]					
White, non-Hispanic	40.4	87.9	92.8	89.4	**85.2**
Black, non-Hispanic	26.7	74.2	81.9	78.6	**71.7**
Hispanic	36.4	74.4	78.3	76.2	**70.8**
Population Density					
Large metro	34.7	80.3	87.9	87.5	**81.3**
Small metro	39.4	86.0	88.7	87.7	**82.5**
Nonmetro	39.0	83.2	88.1	83.1	**79.0**
Region					
Northeast	39.4	84.4	89.5	91.2	**85.2**
North Central	41.4	91.2	92.2	89.8	**85.2**
South	34.5	80.9	87.1	81.7	**77.6**
West	35.9	77.6	84.6	86.6	**79.6**
Adult Education[2]					
Less than high school	N/A	78.1	80.7	76.9	**77.6**
High school graduate	N/A	81.0	86.2	85.7	**85.0**
Some college	N/A	86.0	93.1	90.4	**90.0**
College graduate	N/A	90.8	88.9	91.0	**90.6**
Current Employment[3]					
Full-time	N/A	87.8	90.8	90.5	**90.3**
Part-time	N/A	79.3	88.4	88.2	**85.9**
Unemployed	N/A	84.2	84.3	90.8	**87.6**
Other[4]	N/A	77.1	75.1	80.5	**79.7**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.
[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).
[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).
[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 7.2 **Percentage Reporting Alcohol Use in the Past Year, by Age Group and Demographic Characteristics: 1998**

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**31.8**	**74.2**	**74.5**	**64.6**	**64.0**
Gender					
Male	31.0	79.3	77.7	70.2	**68.3**
Female	32.7	68.9	71.5	59.7	**60.0**
Race/Ethnicity[1]					
White, non-Hispanic	35.1	79.0	79.0	68.0	**67.8**
Black, non-Hispanic	22.3	64.2	66.0	48.1	**50.4**
Hispanic	29.4	66.2	66.2	60.7	**58.5**
Population Density					
Large metro	29.9	71.7	75.3	68.4	**66.1**
Small metro	33.4	77.2	74.3	65.9	**65.4**
Nonmetro	32.8	73.0	73.0	55.5	**57.6**
Region					
Northeast	33.8	78.0	77.1	71.9	**69.8**
North Central	35.7	84.5	82.1	70.5	**70.4**
South	29.5	69.3	70.9	56.0	**57.3**
West	29.7	68.1	70.5	65.7	**62.9**
Adult Education[2]					
Less than high school	N/A	67.0	67.9	46.9	**52.8**
High school graduate	N/A	72.2	72.0	62.3	**65.5**
Some college	N/A	77.2	78.2	70.0	**73.0**
College graduate	N/A	84.0	76.8	74.9	**75.9**
Current Employment[3]					
Full-time	N/A	79.2	77.3	72.3	**74.4**
Part-time	N/A	72.7	75.6	71.6	**72.5**
Unemployed	N/A	77.2	69.6	76.1	**75.1**
Other[4]	N/A	64.3	61.0	51.7	**53.8**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 7.3 Percentage Reporting Alcohol Use in the Past Month, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years 12-17	18-25	26-34	35+	Total
Total	**19.1**	**60.0**	**60.9**	**53.1**	**51.7**
Gender					
Male	19.4	68.2	67.7	61.4	**58.7**
Female	18.7	51.7	54.2	45.8	**45.1**
Race/Ethnicity[1]					
White, non-Hispanic	20.9	65.0	65.2	56.2	**55.3**
Black, non-Hispanic	13.1	50.3	54.8	38.3	**39.8**
Hispanic	18.9	50.8	53.1	47.7	**45.4**
Population Density					
Large metro	17.7	58.2	61.2	57.0	**53.9**
Small metro	20.0	63.1	61.5	54.6	**53.3**
Nonmetro	20.1	57.4	59.0	43.4	**44.7**
Region					
Northeast	22.1	64.3	62.4	57.7	**55.8**
North Central	20.6	72.1	67.9	58.7	**57.8**
South	17.5	54.4	58.3	45.6	**45.8**
West	17.4	53.0	56.5	55.0	**50.9**
Adult Education[2]					
Less than high school	N/A	50.8	51.5	36.0	**40.4**
High school graduate	N/A	57.6	59.0	49.4	**52.3**
Some college	N/A	64.6	64.0	57.3	**60.1**
College graduate	N/A	70.5	64.3	65.5	**65.5**
Current Employment[3]					
Full-time	N/A	66.6	64.4	60.9	**62.5**
Part-time	N/A	56.0	59.9	59.1	**58.4**
Unemployed	N/A	63.3	54.5	59.8	**59.7**
Other[4]	N/A	49.4	45.3	40.6	**41.9**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 7.4 Percentage Reporting Alcohol Use in Their Lifetime, the Past Year, and the Past Month, by Age: 1998

		Time Period		
Age Group in Years	**(Unweighted *n*)**	**Lifetime**	**Past Year**	**Past Month**
Total	(25,500)	81.3	64.0	51.7
12-17 Years	(6,778)	37.3	31.8	19.1
12-13	(2,240)	14.4	10.4	4.9
14-15	(2,356)	38.6	33.7	20.9
16-17	(2,182)	60.4	52.5	32.0
18-25 Years	(7,318)	83.2	74.2	60.0
18-20	(2,981)	78.1	69.0	53.5
21-25	(4,337)	86.7	77.7	64.6
26-34 Years	(4,537)	88.2	74.5	60.9
26-29	(2,017)	86.2	74.3	61.1
30-34	(2,520)	89.8	74.7	60.7
35+ Years	(6,867)	86.6	64.6	53.1
35-39	(1,381)	89.2	75.8	63.5
40-44	(1,179)	92.2	74.9	61.9
45-49	(1,157)	88.7	67.8	54.8
50+	(3,150)	83.5	57.2	46.7

Note Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994

Source Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998

Table 7.5 Percentage Reporting Alcohol Use in Their Lifetime, the Past Year, and the Past Month, by Age Group, Race/Ethnicity, and Gender: 1998

Race/Ethnicity[1] and Gender	Age Group in Years				Total
	12-17	18-25	26-34	35+	
(Unweighted *n*)					
White, non-Hispanic male	(1,576)	(1,367)	(805)	(1,555)	**(5,303)**
Black, non-Hispanic male	(668)	(742)	(362)	(567)	**(2,339)**
Hispanic male	(910)	(974)	(622)	(537)	**(3,043)**
White, non-Hispanic female	(1,515)	(1,559)	(1,085)	(2,247)	**(6,406)**
Black, non-Hispanic female	(706)	(1,056)	(691)	(1,023)	**(3,476)**
Hispanic female	(959)	(1,213)	(810)	(770)	**(3,752)**
A. Used Alcohol in Their Lifetime					
White, non-Hispanic male	39.4	90.1	94.6	93.7	**88.0**
Black, non-Hispanic male	25.9	79.5	82.4	87.3	**76.2**
Hispanic male	36.0	82.4	88.8	89.3	**80.4**
White, non-Hispanic female	41.5	85.6	91.0	85.7	**82.5**
Black, non-Hispanic female	27.5	69.4	81.5	72.0	**67.9**
Hispanic female	36.9	65.8	66.3	63.5	**60.8**
B. Used Alcohol in the Past Year					
White, non-Hispanic male	34.1	82.5	79.8	72.2	**70.8**
Black, non-Hispanic male	21.5	70.3	70.8	57.4	**56.8**
Hispanic male	28.2	74.8	78.4	73.2	**68.3**
White, non-Hispanic female	36.1	75.4	78.2	64.3	**65.0**
Black, non-Hispanic female	23.0	58.5	61.9	41.1	**45.1**
Hispanic female	30.6	57.0	52.2	48.8	**48.4**
C. Used Alcohol in the Past Month					
White, non-Hispanic male	21.5	71.7	70.5	63.3	**61.2**
Black, non-Hispanic male	12.2	59.4	63.3	51.0	**49.0**
Hispanic male	18.8	62.3	67.6	61.1	**56.8**
White, non-Hispanic female	20.2	58.2	59.8	50.0	**49.7**
Black, non-Hispanic female	14.0	42.0	47.7	28.9	**32.3**
Hispanic female	19.1	38.5	36.7	34.7	**33.6**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

[1] The category "other" for race/ethnicity is not included.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 7.6 **Percentage Distribution of Days of Alcohol Use in the Past Month, by Demographic Characteristics: 1998**

Demographic Characteristic	(Unweighted *n*)	Days of Use			
		None	1-4	5-19	20-30
Total	(24,295)	50.6	26.5	15.7	7.2
Gender					
Male	(10,703)	43.2	26.6	19.8	10.5
Female	(13,592)	57.5	26.5	11.8	4.1
Age Group in Years					
12-17	(6,511)	83.9	11.3	4.1	0.7
18-25	(6,939)	42.0	30.8	23.6	3.7
26-34	(4,310)	40.8	35.5	19.6	4.0
35+	(6,535)	49.2	25.9	15.0	9.9
Race/Ethnicity[1]					
White, non-Hispanic	(11,290)	46.6	27.8	17.2	8.4
Black, non-Hispanic	(5,501)	63.4	21.3	11.2	4.1
Hispanic	(6,387)	58.8	26.0	12.2	3.0
Population Density					
Large metro	(12,347)	48.4	28.3	16.2	7.1
Small metro	(7,289)	49.1	26.3	16.7	7.9
Nonmetro	(4,659)	57.4	23.4	13.0	6.2
Region					
Northeast	(2,979)	46.4	30.6	16.1	6.9
North Central	(3,492)	44.3	28.7	19.6	7.4
South	(8,078)	56.7	23.3	13.3	6.6
West	(9,746)	51.2	25.9	14.9	8.0
Adult Education[2]					
Less than high school	(4,343)	63.2	20.8	10.7	5.4
High school graduate	(5,951)	50.7	27.6	14.6	7.1
Some college	(4,599)	41.4	31.1	19.1	8.5
College graduate	(2,891)	35.6	31.7	22.5	10.2
Current Employment[3]					
Full-time	(9,478)	39.2	32.1	20.3	8.4
Part-time	(2,394)	43.4	32.0	18.0	6.5
Unemployed	(1,126)	42.8	30.4	16.3	10.6
Other[4]	(4,786)	61.3	20.3	11.0	7.4

Note 1: Only past month alcohol users who reported the number of days they used alcohol during the past 30 days are included in this table. Thus, the actual unweighted *n*'s are smaller than appear in Table 1.1 because of differing patterns of nonresponse for the question on days of use.

Note 2: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=17,784).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=17,784).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 7.7 Percentage Reporting "Binge" Alcohol Use in the Past Month, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				
	12-17	18-25	26-34	35+	Total
Total	**7.5**	**30.8**	**21.2**	**11.5**	**15.1**
Gender					
Male	8.5	41.6	30.4	18.4	**22.4**
Female	6.5	19.8	12.1	5.4	**8.3**
Race/Ethnicity[1]					
White, non-Hispanic	9.1	36.8	23.0	11.7	**16.0**
Black, non-Hispanic	2.9	15.0	16.0	10.0	**10.9**
Hispanic	6.1	23.9	19.3	12.4	**15.0**
Population Density					
Large metro	6.5	26.2	21.5	11.1	**14.2**
Small metro	7.5	36.9	18.9	12.0	**16.2**
Nonmetro	9.3	27.8	24.1	11.4	**14.9**
Region					
Northeast	8.0	31.2	20.6	8.4	**13.0**
North Central	8.5	41.2	27.8	14.9	**19.6**
South	6.8	26.6	18.6	11.1	**13.8**
West	7.0	26.4	19.1	11.3	**14.2**
Adult Education[2]					
Less than high school	N/A	26.4	21.6	10.7	**14.6**
High school graduate	N/A	27.4	21.8	12.3	**16.2**
Some college	N/A	34.8	18.2	11.1	**17.2**
College graduate	N/A	37.7	23.1	11.4	**15.3**
Current Employment[3]					
Full-time	N/A	35.6	24.4	16.3	**20.7**
Part-time	N/A	29.4	14.1	9.3	**15.3**
Unemployed	N/A	25.5	21.8	19.8	**21.8**
Other[4]	N/A	24.1	8.5	5.1	**7.4**

Note 1: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

Note 2: "Binge" alcohol use is defined as drinking five or more drinks on the same occasion on at least 1 day in the past 30 days. By "occasion" is meant at the same time or within a couple hours of each other.

Note 3: Estimates for "binge" alcohol use in this table differ from the corresponding estimates in Chapter 2 because of different treatment of missing values. In the present table, those who had a missing response to the item "In the past 30 days, on how many days did you have five or more drinks on the same occasion?" were essentially treated as nonbinge users. Conversely, in Chapter 2, those who had a missing response on this days of use item were excluded from the analysis.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 7.8 Percentage Reporting Heavy Alcohol Use in the Past Month, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**2.9**	**13.4**	**6.9**	**4.2**	**5.7**
Gender					
Male	3.7	19.1	11.5	7.6	**9.3**
Female	2.0	7.7	2.5	1.3	**2.3**
Race/Ethnicity[1]					
White, non-Hispanic	3.5	16.4	6.8	4.0	**5.8**
Black, non-Hispanic	0.7	5.9	7.4	4.4	**4.7**
Hispanic	2.3	10.1	7.3	5.5	**6.2**
Population Density					
Large metro	2.6	10.3	6.8	3.7	**4.9**
Small metro	2.3	17.2	6.7	4.7	**6.6**
Nonmetro	4.1	12.1	7.8	4.6	**5.9**
Region					
Northeast	2.8	12.4	5.7	2.3	**4.1**
North Central	3.2	21.2	9.4	6.5	**8.5**
South	2.6	10.9	6.6	4.3	**5.4**
West	2.9	10.1	6.1	3.3	**4.6**
Adult Education[2]					
Less than high school	N/A	11.6	10.3	6.0	**7.5**
High school graduate	N/A	12.0	8.0	4.6	**6.3**
Some college	N/A	16.3	5.9	3.6	**6.6**
College graduate	N/A	12.3	5.2	3.0	**4.0**
Current Employment[3]					
Full-time	N/A	15.5	8.1	5.8	**7.6**
Part-time	N/A	11.4	5.9	2.5	**5.4**
Unemployed	N/A	12.6	8.0	9.8	**10.2**
Other[4]	N/A	11.3	1.1	2.2	**3.1**

Note 1: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

Note 2: Heavy alcohol use is defined as drinking five or more drinks on the same occasion on each of 5 or more days in the past 30 days. By "occasion" is meant at the same time or within a couple hours of each other.

Note 3: Estimates for heavy alcohol use in this table differ from the corresponding estimates in Chapter 2 because of different treatment of missing values. In the present table, those who had a missing response to the item "In the past 30 days, on how many days did you have five or more drinks on the same occasion?" were essentially treated as nonheavy users. Conversely, in Chapter 2, those who had a missing response on this days of use item were excluded from the analysis.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 7.9 Percentage of Those Under 21 and 21 or Older Reporting Any Alcohol Use, "Binge" Alcohol Use, and Heavy Alcohol Use in the Past Month, by Demographic Characteristics: 1998

	Age Group in Years					
	Under 21 (Unweighted *n*=9,759)			21 or Older (Unweighted *n*=15,741)		
Demographic Characteristic	**Any Use**	**"Binge" Use**	**Heavy Use**	**Any Use**	**"Binge" Use**	**Heavy Use**
Total	30.6	14.8	6.8	55.6	15.1	5.5
Gender						
Male	32.5	18.1	9.2	63.9	23.3	9.3
Female	28.6	11.4	4.2	48.0	7.7	2.0
Race/Ethnicity[1]						
White, non-Hispanic	33.4	18.0	8.4	58.8	15.7	5.4
Black, non-Hispanic	22.9	5.7	2.2	44.1	12.2	5.3
Hispanic	27.7	11.9	5.4	50.0	15.8	6.5
Population Density						
Large metro	26.7	11.2	4.5	58.6	14.8	5.0
Small metro	34.8	18.5	8.6	56.9	15.8	6.1
Nonmetro	30.5	15.2	7.7	47.4	14.8	5.5
Region						
Northeast	31.4	14.5	5.7	59.8	12.7	3.8
North Central	37.3	19.2	10.7	61.8	19.7	8.0
South	27.7	13.1	5.5	49.1	14.0	5.3
West	27.3	13.0	5.2	55.6	14.4	4.5
Adult Education[2]						
Less than high school	46.8	24.6	12.4	39.7	13.6	7.0
High school graduate	52.9	28.7	14.6	52.3	15.2	5.7
Some college	60.5	34.7	16.1	60.0	15.9	5.9
College graduate	*	*	*	65.5	15.3	4.0
Current Employment[2]						
Full-time	60.1	36.0	20.3	62.5	20.2	7.1
Part-time	52.4	28.5	10.9	59.4	12.9	4.3
Unemployed	60.5	22.5	11.4	59.5	21.7	10.0
Other[3]	45.4	25.5	13.2	41.7	6.4	2.5

Note 1: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

Note 2: "Binge" alcohol use is defined as drinking five or more drinks on the same occasion on at least 1 day in the past 30 days. By "occasion" is meant at the same time or within a couple hours of each other. Heavy alcohol use is defined as drinking five or more drinks on the same occasion on each of 5 or more days in the past 30 days; all heavy alcohol users also are "binge" alcohol users.

Note 3: Estimates for "binge" and heavy alcohol use in this table differ from the corresponding estimates in Chapter 2 because of different treatment of missing values. In the present table, those who had a missing response to the item "In the past 30 days, on how many days did you have five or more drinks on the same occasion" were essentially treated as nonbinge or nonheavy users. Conversely, in Chapter 2, those who had a missing response on this days of use item were excluded from the analysis.

*Low precision; no estimated reported.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education and current employment for those "under 21" exclude youths aged 12 to 17 (i.e., only data for adults aged 18 to 20 are included). All other data for those "under 21" include all people aged 12 to 20.

[3] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 7.10 Percentage Reporting Use of Selected Drugs in the Past Month, by Age Group and Alcohol Use in the Past Month: 1998

Age Group in Years/	Alcohol Use in the Past Month		
Drugs Used in the Past Month	No[1]	Yes	Total
Total (Unweighted *n*)	**(14,303)**	**(11,197)**	**(25,500)**
Cigarettes	18.2	36.5	**27.7**
Marijuana	1.1	8.7	**5.0**
Drugs other than marijuana	0.7	4.1	**2.5**
Nonmedical use of any psychotherapeutic[2]	0.5	1.7	**1.1**
Cocaine	0.1	1.5	**0.8**
Any illicit drug use[3]	1.7	10.5	**6.2**
12-17 Years	(5,467)	(1,311)	**(6,778)**
Cigarettes	10.0	53.4	**18.2**
Marijuana	1.8	35.8	**8.3**
Drugs other than marijuana	1.5	14.5	**4.0**
Nonmedical use of any psychotherapeutic[2]	0.9	5.1	**1.7**
Cocaine	0.1	4.1	**0.8**
Any illicit drug use[3]	2.9	39.9	**9.9**
18-25 Years	(3,331)	(3,987)	**(7,318)**
Cigarettes	21.4	55.0	**41.6**
Marijuana	2.0	21.7	**13.8**
Drugs other than marijuana	1.1	10.0	**6.5**
Nonmedical use of any psychotherapeutic[2]	0.5	4.1	**2.7**
Cocaine	0.3	3.1	**2.0**
Any illicit drug use[3]	2.7	25.1	**16.1**
26-34 Years	(1,963)	(2,574)	**(4,537)**
Cigarettes	22.4	39.0	**32.5**
Marijuana	1.6	8.0	**5.5**
Drugs other than marijuana	0.8	4.1	**2.8**
Nonmedical use of any psychotherapeutic[2]	0.7	1.7	**1.3**
Cocaine	0.1	1.9	**1.2**
Any illicit drug use[3]	2.4	10.0	**7.0**
35+ Years	(3,542)	(3,325)	**(6,867)**
Cigarettes	19.1	30.3	**25.1**
Marijuana	0.6	4.2	**2.5**
Drugs other than marijuana	0.4	2.0	**1.3**
Nonmedical use of any psychotherapeutic[2]	0.4	0.9	**0.7**
Cocaine	*	0.8	**0.5**
Any illicit drug use[3]	1.0	5.3	**3.3**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

*Low precision; no estimate reported.

[1] Includes respondents who reported never using alcohol, as well as those who reported previous but not past month use.

[2] Nonmedical use of any prescription-type stimulant, sedative, tranquilizer, or analgesic; does not include over-the-counter drugs.

[3] Use of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP] and lysergic acid diethylamide [LSD]), heroin, or nonmedical use of psychotherapeutics at least once.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 7.11 Percentage Reporting Use of Selected Drugs in the Past Month, by Age Group and "Binge" Alcohol Use in the Past Month: 1998

Age Group in Years/ Drugs Used in the Past Month	Binge Alcohol Use in the Past Month		
	No[1]	Yes	Total
Total (Unweighted *n*)	**(21,618)**	**(3,882)**	**(25,500)**
Cigarettes	22.7	55.6	**27.7**
Marijuana	2.6	19.0	**5.0**
Drugs other than marijuana	1.3	9.1	**2.5**
Nonmedical use of any psychotherapeutic[2]	0.7	3.8	**1.1**
Cocaine	0.3	3.8	**0.8**
Any illicit drug use[3]	3.4	22.2	**6.2**
12-17 Years	(6,282)	(496)	**(6,778)**
Cigarettes	14.0	70.9	**18.2**
Marijuana	4.6	53.9	**8.3**
Drugs other than marijuana	2.4	23.5	**4.0**
Nonmedical use of any psychotherapeutic[2]	1.1	8.6	**1.7**
Cocaine	0.3	7.4	**0.8**
Any illicit drug use[3]	6.0	58.3	**9.9**
18-25 Years	(5,536)	(1,782)	**(7,318)**
Cigarettes	30.8	65.8	**41.6**
Marijuana	6.2	30.8	**13.8**
Drugs other than marijuana	2.7	15.0	**6.5**
Nonmedical use of any psychotherapeutic[2]	1.1	6.1	**2.7**
Cocaine	0.5	5.1	**2.0**
Any illicit drug use[3]	7.5	35.4	**16.1**
26-34 Years	(3,666)	(871)	**(4,537)**
Cigarettes	27.4	51.5	**32.5**
Marijuana	3.3	13.4	**5.5**
Drugs other than marijuana	1.8	6.4	**2.8**
Nonmedical use of any psychotherapeutic[2]	1.0	2.6	**1.3**
Cocaine	0.4	3.9	**1.2**
Any illicit drug use[3]	4.5	16.3	**7.0**
35+ Years	(6,134)	(733)	**(6,867)**
Cigarettes	21.8	50.1	**25.1**
Marijuana	1.4	11.1	**2.5**
Drugs other than marijuana	0.7	5.6	**1.3**
Nonmedical use of any psychotherapeutic[2]	0.4	2.4	**0.7**
Cocaine	0.2	2.6	**0.5**
Any illicit drug use[3]	2.0	13.6	**3.3**

Note 1. Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

Note 2. "Binge" alcohol use is defined as drinking five or more drinks on the same occasion on at least 1 day in the past 30 days. By "occasion" is meant at the same time or within a couple hours of each other.

Note 3. Estimates for "binge" alcohol use in this table differ from the corresponding estimates in Chapter 2 because of different treatment of missing values. In the present table, those who had a missing response to the item "In the past 30 days, on how many days did you have five or more drinks on the same occasion?" were essentially treated as nonbinge users. Conversely, in Chapter 2, those who had a missing response on this days of use item were excluded from the analysis.

[1] Includes respondents who reported never using alcohol, as well as those who reported previous but not past month use.

[2] Nonmedical use of any prescription-type stimulant, sedative, tranquilizer, or analgesic; does not include over-the-counter drugs.

[3] Use of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP] and lysergic acid diethylamide [LSD]), heroin, or nonmedical use of psychotherapeutics at least once.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

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Table 7.12 Percentage Reporting Use of Selected Drugs in the Past Month, by Age Group and Heavy Alcohol Use in the Past Month: 1998

Age Group in Years/ Drugs Used in the Past Month	Heavy Alcohol Use in the Past Month		
	No[1]	Yes	Total
Total (Unweighted *n*)	**(23,998)**	**(1,502)**	**(25,500)**
Cigarettes	25.4	64.7	**27.7**
Marijuana	3.8	25.6	**5.0**
Drugs other than marijuana	1.8	13.9	**2.5**
Nonmedical use of any psychotherapeutic[2]	0.8	6.0	**1.1**
Cocaine	0.5	6.0	**0.8**
Any illicit drug use[3]	4.8	29.5	**6.2**
12-17 Years	(6,587)	(191)	**(6,778)**
Cigarettes	16.5	76.7	**18.2**
Marijuana	6.6	65.1	**8.3**
Drugs other than marijuana	3.2	30.6	**4.0**
Nonmedical use of any psychotherapeutic[2]	1.4	*	**1.7**
Cocaine	0.5	11.5	**0.8**
Any illicit drug use[3]	8.2	68.5	**9.9**
18-25 Years	(6,582)	(736)	**(7,318)**
Cigarettes	36.9	71.9	**41.6**
Marijuana	9.5	41.3	**13.8**
Drugs other than marijuana	4.1	21.8	**6.5**
Nonmedical use of any psychotherapeutic[2]	1.5	10.2	**2.7**
Cocaine	1.1	7.6	**2.0**
Any illicit drug use[3]	11.5	46.1	**16.1**
26-34 Years	(4,237)	(300)	**(4,537)**
Cigarettes	30.3	62.1	**32.5**
Marijuana	4.4	19.8	**5.5**
Drugs other than marijuana	2.1	12.3	**2.8**
Nonmedical use of any psychotherapeutic[2]	1.1	5.0	**1.3**
Cocaine	0.6	8.3	**1.2**
Any illicit drug use[3]	5.7	25.2	**7.0**
35+ Years	(6,592)	(275)	**(6,867)**
Cigarettes	23.6	59.5	**25.1**
Marijuana	2.1	12.9	**2.5**
Drugs other than marijuana	1.0	7.4	**1.3**
Nonmedical use of any psychotherapeutic[2]	0.6	3.0	**0.7**
Cocaine	0.3	3.3	**0.5**
Any illicit drug use[3]	2.8	15.8	**3.3**

Note 1 Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

Note 2 Heavy use is defined as drinking five or more drinks on the same occasion on each of 5 or more days in the past 30 days.

Note 3 Estimates for heavy alcohol use in this table differ from the corresponding estimates in Chapter 2 because of different treatment of missing values. In the present table, those who had a missing response to the item "In the past 30 days, on how many days did you have five or more drinks on the same occasion?" were essentially treated as nonheavy users. Conversely, in Chapter 2, those who had a missing response on this days of use item were excluded from the anslysis.

*Low precision, no estimate reported.

[1] Includes respondents who reported never using alcohol, as well as those who reported previous but not past month use.

[2] Nonmedical use of any prescription-type stimulant, sedative, tranquilizer, or analgesic; does not include over-the-counter drugs.

[3] Use of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP] and lysergic acid diethylamide [LSD]), heroin, or nonmedical use of psychotherapeutics at least once.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Chapter 8: Cigarettes, Smokeless Tobacco, and Cigars

Tobacco use is considered to be the most important preventable cause of death and disease in the United States (Office on Smoking and Health, 1999). Tobacco has been linked to cancer, coronary heart disease, and stroke (Food and Drug Administration [FDA], 1996; Office on Smoking and Health, 1989). Yet tobacco remains one of the most widely used substances in the United States.

The most common tobacco product used in the United States is cigarettes. In 1998, approximately 70% of the household population aged 12 or older (about 152 million persons) had ever tried a cigarette (see Table 2.1). Almost one-third (31%) or 67 million persons had smoked in the past year, and 28% (or 60 million persons) were current smokers (i.e., had smoked in the past month). Trend data from the NHSDA and other sources have shown that the prevalence of cigarette smoking among adults has declined dramatically since the mid-1960s, following the release of the first Surgeon General's report on the health consequences of smoking (National Center for Health Statistics [NCHS], 1996). As shown in Tables 2.3 and 2.4, the 1998 rates for past year and current cigarette use in the total population were significantly lower than the corresponding rates for 1997.

Trend data from the NHSDA and Monitoring the Future also suggest that after steady increases in smoking among adolescents that began in the early 1990s, the prevalence of smoking among youths may have started to turn downward in 1998 (Johnston et al., 1998, 1999). As shown in Table 2.6, rates of past year use decreased among those aged 12 to 17 between 1997 and 1998. This is particularly important because, as noted by Nelson et al. (1995), adolescence is the critical period in which most smokers begin smoking.

The second most commonly used tobacco product, cigars, also has been linked to cancer and coronary heart disease (Boffetta et al., 1999; Iribarren, Tekawa, Sidney, & Friedman, 1999; Muscat, Stellman, Hoffman, & Wynder, 1998). More than one-third of the U.S. population aged 12 or older (35%) had taken at least a puff of a cigar in their lifetime, and around 7% had done so in the past month (Tables 8.12 and 8.13). Research indicates that rates of cigar use appear to have been increasing from the late 1980s to the present (Gilpin & Pierce, 1999; Hyland, Cummings, Shopland, & Lynn, 1998). The 1998 rate of lifetime cigar use among the total population was unchanged between 1997 (the first year such data were available) and 1998 (OAS, 1999c, Table 79B). However, lifetime rates among 18 to 25 year olds increased significantly from 36% to 39%, and they increased particularly among 18- to 25-year-old females (20% in 1997 to 25% in 1998). Past month cigar use among the total population and the 35 or older age group also increased between 1997 and 1998 (OAS, 1999c, Table 80B).

Smokeless tobacco use has been linked to oral cancer and other oral problems (Cullen et al., 1986; Ernster et al., 1990; National Institutes of Health [NIH], 1986). Furthermore, as is the case with cigarettes, use of smokeless tobacco products can lead to nicotine dependence (Connolly, Orleans, & Kogan, 1988; Ernster et al., 1990; Public Health Service [PHS], 1991). Far fewer people have used smokeless tobacco than have smoked cigarettes or cigars. An estimated 17% of the U.S. population aged 12 or older had ever tried smokeless tobacco, 4% had used it in the past year, and only 3% had used it in the past month (see Tables 8.8 to 8.10). Consumption of smokeless tobacco products increased rapidly in the 1970s and 1980s, particularly among young white males (Connolly et al., 1986; Giovino et al., 1994). Trend data in Tables 2.3 and 2.4 indicate that smokeless tobacco use has remained relatively stable since the mid-1990s and that rates of past year and current smokeless tobacco use did not change significantly from 1997 to 1998. The one notable exception is current use among adolescents aged 12 to 17 years, which *decreased* significantly from 2.0% in 1997 to 1.2% in 1998 (Table 2.11).

In this chapter, information is provided on the prevalence and correlates of cigarette, smokeless tobacco, and cigar use along with information on the amount of cigarette use per day and the relationships between use of cigarettes or cigars and use of other drugs.

Cigarette Use, by Age Group (Tables 8.1 to 8.4)

Most adults in the United States have had some experience with cigarettes. Approximately 69% to 75% of the adult age groups shown in Table 8.1 had tried at least a few puffs of a cigarette at some point in their lifetime. In comparison, about 36% of youths aged 12 to 17 had ever tried a cigarette. This finding is consistent with other research indicating that adolescence is the period during which most smokers first try cigarettes (Johnson, Gerstein, Ghadialy, Choi, & Gfroerer, 1996; Nelson et al., 1995). The direct relationship between the prevalence of lifetime smoking and age also probably reflects historical differences between age groups in terms of the social acceptability of smoking, as well as increased opportunities with age to have tried a cigarette at some point in one's lifetime.

Approximately 31% of the population aged 12 or older had smoked within the past year (Table 8.2). A similar percentage (about 28%) were current smokers, meaning that they had smoked within the past 30 days (Table 8.3). Differences in rates of past year and past month use between all of the age groups were statistically significant, with the highest rates being reported by 18 to 25 year olds and the lowest rates reported by 12 to 17 year olds. Specifically, 42% of those aged 18 to 25 reported past month use compared with 33% of those aged 26 to 34, 25% of those aged 35 or older, and 18% of those aged 12 to 17.

Table 8.4 displays the prevalences of lifetime, past year, and current cigarette use for finer age group divisions. The steepest age gradient in the prevalence of lifetime smoking occurs in the teenage years and early 20s. In particular, only about 17% of teenagers aged 12 or 13 had ever smoked. For ages 14 and 15, the prevalence of lifetime smoking doubled (37%), and more than half of youths aged 16 and 17 (55%) had tried a cigarette at some point in their lifetime. Nearly two-thirds of young adults aged 18 to 20 had ever smoked, but this rate increased by only about four percentage points for young adults aged 21 to 25.

The prevalence of both past year and past month smoking increases rapidly throughout adolescence and young adulthood, reaching a peak when people are 18 to 20 years of age. Beyond that point, the prevalence declines. For example, about 43% of young adults aged 18 to 20 and about 41% of adults aged 21 to 25 were current (i.e., past month) smokers compared with 33% of adults aged 26 to 34 and fewer than 30% of adults aged 40 or older.

Cigarette Use, by Age Group and Gender (Tables 8.1 to 8.3)

The prevalence of smoking showed important differences by age and gender. In particular, the lifetime, past year, and past month prevalence of smoking did not differ significantly among adolescent males and females. However, among all other age groups, males were significantly more likely than females to report lifetime, past year, and past month cigarette use. For instance, among young adults aged 18 to 25 years (the age group with the highest prevalence of current smoking), 45% of males were current smokers, compared with 38% of females.

Cigarette Use, by Age Group and Race/Ethnicity (Tables 8.1 to 8.3)

Whites were more likely than blacks or Hispanics to have ever smoked.[1] This pattern held across all age groups. Notably, 40% of white youths aged 12 to 17 had ever smoked a cigarette compared with 26% of black youths and 32% of Hispanic youths. Among young adults aged 18 to 25, three-fourths of whites had ever smoked compared with 54% of blacks and 60% of Hispanics.

Although no significant differences were found in past year use between racial/ethnic groups for the total population, whites were more likely than blacks to report past year use among those aged 12 to 34. Among those 35 or older, blacks were more likely than whites or Hispanics to report past year use. In addition, whites aged 18 to 25 and 26 to 34 were more likely to report such use than Hispanics. Hispanic adolescents were more likely to report past year use than black adolescents.

A slightly different pattern emerged for past month cigarette use. In the total population and the two oldest age groups, blacks (29%) were *more* likely than Hispanics (26%) to be *current* smokers. However, among adolescents and 18 to 25 year olds, whites were more likely than both blacks and Hispanics to report past month use. Past month use also was more likely among whites than Hispanics aged 26 to 34.

Cigarette Use, by Age Group, Population Density, and Region (Tables 8.1 to 8.3)

Few differences in rates of past year and past month cigarette use by population density reached statistical significance. Among the total population, no significant differences were found in past year use, but past month use was higher among those in nonmetropolitan areas than those in large metropolitan areas. Within the two youngest age groups, rates of past year and past month use were found to be higher among residents of nonmetropolitan areas than residents of large metropolitan areas. In addition, past year and past month use was higher among 18 to 25 year olds in small metropolitan areas than in large metropolitan areas.

Rates of past year and past month use were generally higher among residents of the North Central region than other regions. For example, among the 18 to 25 age group (the age group with the highest rates of past month use), 52% of those in the North Central region reported current smoking compared with 42% of those in the South, 38% of those in the Northeast, and 33% of those in the West.

Cigarette Use, by Adult Education and Adult Employment (Tables 8.1 to 8.3)

Among those aged 18 or older, the prevalence of past year and past month cigarette use generally decreased with increasing education level. Within each of the adult age groups, almost all differences in rates of past year and current use between educational levels were statistically significant. For example, the rate of current cigarette among adults aged 18 to 25 who had not finished high school (55%) was significantly higher than rate among high school graduates (43%), among those with some college (37%), and college graduates (27%).

Current employment status also was related to past year and current smoking. In the total population, unemployed persons had significantly higher use rates of past year and current smoking compared with adults employed full-time or part-time. This pattern was found for all of the adult age groups.

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[1] In the interest of readability for this report, "white" is used to indicate "white, non-Hispanic" and "black" to indicate "black, non-Hispanic."

Cigarette Use, by Age Group, Race/Ethnicity, and Gender (Table 8.5)

As discussed above, whites were generally more likely than blacks or Hispanics to be past year or current cigarette users. In all four age groups shown in Table 8.5, white males were about equally likely as white females to be past year or past month cigarette smokers.

Among young adults aged 18 to 25, both white males and white females were significantly more likely than their counterparts in the black or Hispanic racial/ethnic groups to have smoked cigarettes in the past year or past month. In particular, white females aged 18 to 25 were almost twice as likely as black or Hispanic females to be current smokers. Nearly half of young adult white males were current cigarette users compared with about 37% and 40% of black or Hispanic males, respectively.

Among youths aged 12 to 17, white males were more likely to have smoked in the past year than black males. White female youths were more likely than both black and Hispanic youths to have used cigarettes in the past year and past month, and Hispanic adolescent females were more likely to have used than black adolescent females.

Males were generally more likely than females to be past year or current cigarette smokers, with the notable exception of cigarette use among youths. The only consistent difference by race/ethnicity and gender was that black males were more likely than black females in all age groups to have been lifetime, past year, and past month smokers. Additionally, among the adult age groups, Hispanic males were more likely than Hispanic females to have smoked cigarettes in the past year and past month.

Heavy Cigarette Use (Table 8.6)

Approximately one-tenth of the United States household population could be considered a heavy smoker in 1998. Based on population size of 218,445,000 (Table 1.2), 11.4% or about 24.9 million people aged 12 or older could be considered heavy smokers. Heavy cigarette use was defined as smoking an average of a pack or more of cigarettes a day in the past month.[2]

Marked differences in the prevalence of heavy smoking were observed across all demographic categories. In particular, adults (12% to 13%) were approximately six times more likely than youths (2%) to be heavy smokers. Moreover, about one in nine adolescents who were current smokers also were heavy smokers. In comparison, more than one in four young adult current smokers were heavy smokers, and among current smokers aged 35 or older, more than half were heavy smokers.

Whites were almost twice as likely as blacks to be heavy smokers (13% vs. 7%, respectively), even though the rates of current smoking among whites and blacks aged 12 or older did not differ significantly. In addition, whites were more than twice as likely as Hispanics to be heavy smokers (13% vs. 5%, respectively). Blacks also were significantly more likely than Hispanics to be heavy smokers. Around half of whites who were current smokers were heavy smokers, about one-fourth of black current smokers were heavy smokers, and only about one in five Hispanic current smokers were heavy smokers.

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[2] The estimates for "less than a pack a day" and "a pack or more a day" in Table 8.6 differ from the estimated prevalence of past month cigarette use in Table 8.3 because of missing data on the number of cigarettes smoked per day in the past month. Past month smokers were excluded from the analysis in Table 8.6 if they did not report the number of cigarettes they smoked per day in the past 30 days.

Individuals living in nonmetropolitan areas (16%) were more likely to be heavy smokers than those living in small (11%) or large metropolitan areas (10%). Persons living in the North Central States (15%) were more likely to be heavy smokers than those living in other parts of the country (8% to 12%).

The inverse relationship between education (among those aged 18 or older) and current smoking also held for education and heavy smoking. About half of those with a high school education or less who were current smokers were heavy smokers compared with one-third of college graduates.

As was the case with any smoking in the past month, unemployed adults had a significantly higher rate of heavy smoking compared with adults in the other employment categories. Adults who were employed full-time also had a significantly higher rate of heavy smoking compared with adults who were employed part-time. However, nearly half of full-time employed adults who were current smokers also were heavy smokers, a rate that was comparable to those among unemployed current smokers. In comparison, heavy smokers comprised about one-third of current smokers in the part-time employed group.

Cigarette Use and Use of Other Drugs (Table 8.7)

Current smokers were more likely than nonsmokers to have used alcohol or illicit drugs in the past month. The differences between smokers and nonsmokers in their use of other substances were statistically significant for every substance within every age category. In the total population aged 12 years or older, for example, the prevalence of any illicit drug use in the past month among current smokers (16%) was more than five times the prevalence of past month illicit drug use among current nonsmokers (3%).

Differences between current cigarette smokers and nonsmokers were particularly pronounced among adolescents. For example, the prevalence of past month alcohol use among youths who were current smokers (56%) was more than five times the prevalence among youths who had not smoked cigarettes in the past month (11%). Adolescent current smokers, compared to nonsmokers, were 14 times more likely to use marijuana, 9 times more likely to engage in illicit use of psychotherapeutics, and 38 times more likely to use cocaine.

Among young adults aged 18 to 25, current smokers were about five to six times more likely than current nonsmokers to have used any illicit drug, marijuana or any illicit drug other than marijuana in the past month. Young adults who were current smokers were eight times more likely than current nonsmokers to have used cocaine in the past month.

Smokeless Tobacco Use (Tables 8.8 to 8.11)

As mentioned earlier, fewer people have used smokeless tobacco than cigarettes. An estimated 17% of the U.S. population aged 12 or older had ever tried smokeless tobacco, 4% had used it in the past year, and only 3% had used it in the past month (Tables 8.8 to 8.10). In comparison, 70% of the population aged 12 or older had ever smoked a cigarette, 31% had smoked in the past year, and 28% had smoked in the past month (Tables 8.1 to 8.3).

Smokeless Tobacco Use, by Age Group, Gender, and Race/Ethnicity. As shown in Tables 8.9 and 8.10, some of the highest rates of smokeless tobacco use in the past year or past month were found among adults aged 18 to 34 years, and particularly among males and whites in these age categories. For example, 16% of young adult males aged 18 to 25 and 12% of adult males aged 26 to 34 had used smokeless tobacco in the past year. About 11% of young adult males and 8% of males aged 26 to 34 had used smokeless tobacco in the past month. Moreover, the rates of current smokeless tobacco use among young adult and middle adult males were about 28 to 35 times the corresponding rates among females in these age groups.

Similarly, 12% of young adult whites had used smokeless tobacco in the past year compared with about 2% and 3% of blacks and Hispanics, respectively. In addition, the rate of current smokeless tobacco use among young adult whites (8%) was about seven times the rate for young adult blacks and Hispanics (1%).

Table 8.11 further indicates that white males aged 18 to 34 were more likely than other demographic subgroups to have used smokeless tobacco in the past year or past month. In particular, 22% of white males aged 18 to 25 were past year smokeless tobacco users compared with about 3% to 5% of young adult males who were black or Hispanic. About 16% of white males aged 26 to 34 used smokeless tobacco in the past year compared with about 2% of black or Hispanic males in this age group. In addition, about 14% and 11% of males in the young and middle adult age groups were current smokeless tobacco users compared with about 2% of their black or Hispanic counterparts.

Smokeless Tobacco Use, by Other Demographic Characteristics. Tables 8.9 and 8.10 also show relationships between past year or past month smokeless tobacco use and population density, region, education, and current employment. Among the total population, the 18 to 25 age group, and the 35 or older age group, people who were living in nonmetropolitan areas had significantly higher rates of past year and past month smokeless tobacco than those living in large or small metropolitan areas, and those in small metropolitan areas had higher rates of use than those in large metropolitan areas. In the total population, rates of use were generally higher in the South and North Central regions than in other parts of the country. However, few statistically significant differences were found between regions within the age groups.

As was the case for cigarette use, rates of past year and current smokeless tobacco use were lowest among members of the adult population who had a college education or higher. However, few differences were found between adult educational categories within the age groups.

Unlike the pattern for cigarette use by employment, rates of past year and current smokeless tobacco use were highest among adults who were employed full-time, and rates of smokeless tobacco use among unemployed adults tended to be comparable to the rates for the part-time employed and "other" employment groups. In particular, 11% of young adults who were employed full-time used smokeless tobacco in the past year compared with 6% to 7% of young adults in the other employment groups. Rates of current smokeless tobacco use among young adults who were employed full-time also were significantly higher than the rates in the other employment groups.

Cigar Use (Tables 8.12 to 8.15)

Although a larger percentage of the U.S. population reported cigar use (including cigarillos) than smokeless tobacco, the rates were still lower than cigarette smoking's rates. As mentioned earlier, more than one-third of the U.S. population aged 12 or older (35%) and more than 36% of adults have taken at least a puff of a cigar in their lifetime (Table 8.12). However, the prevalence of lifetime cigar use among youths (19%) was less than half the rate for adults (36% to 39%). About 7% of the population aged 12 or older had smoked a cigar in the past month (Table 8.13). An estimated 12% of young adults and about 9% of middle adults were current cigar smokers compared with rates of about 6% in the youngest and oldest age categories.

Cigar Use, by Age Group, Gender, and Race/Ethnicity (Tables 8.12 to 8.14). Within all age groups, males were significantly more likely than females to have ever smoked cigars or to be current cigar smokers. Males as a whole were about six times more likely than females to be current cigar smokers (12% vs. 2%, respectively).

Within all age groups, whites were significantly more likely than blacks or Hispanics to have ever smoked cigars. This finding is consistent with higher rates of cigarette and smokeless tobacco use among whites. Past month use of cigars was more likely among whites than the other two racial/ethnic categories among the total population and the 18 to 25 age group.

Table 8.14 shows rates of lifetime and past month cigar use by age group, gender, and race/ethnicity. Within all age groups, both white males and females had significantly higher rates of lifetime cigar use compared with their black and Hispanic counterparts. White males aged 18 or older reported significantly higher rates of current cigar use than Hispanics. Few differences in rates of current cigar use were found between females within the various racial/ethnic categories. Specifically, both white and black females aged 26 to 34 reported rates that were nearly four times as high as rates of use among Hispanic females in the same age group.

Current Cigar Use, by Other Demographic Characteristics (Tables 8.12 and 8.13). Few differences in lifetime or past month cigar use by population density or region reached statistical significance. Among the total population, residents of nonmetropolitan areas were more likely than those in large metropolitan areas to report lifetime cigar use.

Among adults, current cigar use also varied little by education categories. Among the total population and the 35 or older age group, those with some college and college graduates were more likely to report past month use than those with a high school education. However, among the 18 to 25 age group, college graduates reported significantly lower rates than those with a high school degree or less.

Among the total population, those who were unemployed had a significantly higher prevalence of current cigar use compared with adults who were employed part-time or in the "other" employment category. This pattern of a higher prevalence of current cigar use among unemployed adults also held for adults aged 35 or older. However, rates of current use among those aged 26 to 34 were highest among those employed full-time.

Cigar Use and Use of Other Drugs (Table 8.15). As was the case with the relationship between cigarette use and use of other drugs, current cigar smokers were more likely than nonsmokers to have used alcohol or illicit drugs in the past month. For the total population aged 12 or older, current cigar users were significantly more likely than nonusers to be current users of all the other substances shown in Table 8.15. Among adults aged 18 to 25 and adults aged 35 or older, the differences in rates were statistically significant for all substances except the nonmedical use of psychotherapeutics. Among adults aged 26 to 34, differences in rates were significant for alcohol, marijuana, any drug other than marijuana, and any illicit drug.

Associations between current cigar use and use of other drugs were especially pronounced among youths. In particular, nearly half (48%) of the youths who had smoked cigars in the past month also had used one or more illicit drugs in this same period compared with only 8% of cigar nonusers who used one or more illicit drugs. The prevalence of alcohol use among current cigar users (67%) was more than four times the prevalence of alcohol use among cigar nonusers (16%).

Discussion

More Americans have used tobacco than any other drug except alcohol. More than 80% of Americans in the civilian, noninstitutionalized population aged 12 or older used alcohol at some time in their lifetime (see Chapter 7) compared with 70% who had ever tried cigarettes. Nearly 30% of the population aged 12 or older reported being a current cigarette smoker.

Until recently, there was debate about whether tobacco should be considered a drug. In August 1996, however, the FDA published its first comprehensive regulations restricting the sale and distribution of cigarettes and smokeless tobacco to children and adolescents. These regulations were based on the FDA's findings and conclusions that cigarettes and smokeless tobacco products are delivery devices for nicotine, an addictive drug (FDA, 1986).

The findings reported in this chapter show that in 1998, demographic groups at higher risk for tobacco use include adults, males, whites, and residents of nonmetropolitan areas and the North Central region of the country. However, these relationships can be complex. For example, whites were significantly more likely to have ever smoked cigarettes, but blacks were more likely to be current cigarette smokers.

The relationship of tobacco use to gender, race/ethnicity, age, population density, region, education, and employment status should be investigated carefully. As noted above, the interrelationships among several of these demographic characteristics are likely to be complex. For example, race/ethnicity is intricately associated with educational attainment and employment status. Similarly, apparent relationships between tobacco use and population density or region may be due to other demographic variations within these groups that also are related to tobacco use. No further cross-classification of demographic characteristics is provided in this report, except for age stratification and tables examining drug use while simultaneously controlling for gender, race, and age. Multivariate analyses would permit a more thorough examination of the independent contributions of individual demographic characteristics in predicting current use of tobacco products.

Another noteworthy finding concerned the strong associations—and particularly for youths—between current use of cigarettes or cigars and use of other drugs in the past month. However, the presence of associations between cigarette use and use of other drugs should not be interpreted to mean that a causal relationship exists between use of tobacco products and subsequent use of other drugs. For example, even though 39% of youths and 31% of young adults who were current smokers also engaged in illicit drug use in the past month, the majority of youths and young adults who were current smokers did not.

One positive finding in 1998 is that the past year and past month prevalence of smoking was significantly lower in 1998 than in 1997, particularly among adolescents. Continued monitoring will be needed to determine if the decreases are sustained.

Table 8.1 Percentage Reporting Cigarette Use in Their Lifetime, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**35.8**	**68.8**	**71.8**	**75.2**	**69.7**
Gender					
Male	36.1	73.0	77.1	82.3	**75.1**
Female	35.5	64.5	66.7	68.9	**64.7**
Race/Ethnicity[1]					
White, non-Hispanic	39.7	74.9	76.8	77.6	**73.6**
Black, non-Hispanic	26.1	54.1	63.5	71.5	**61.4**
Hispanic	32.3	60.0	60.7	64.5	**58.4**
Population Density					
Large metro	32.0	64.1	71.1	75.2	**68.8**
Small metro	36.0	71.6	70.9	75.4	**70.1**
Nonmetro	42.6	72.4	75.4	74.6	**71.0**
Region					
Northeast	36.4	63.5	74.4	75.9	**70.5**
North Central	40.5	76.5	73.9	75.5	**71.7**
South	35.3	68.8	71.1	74.2	**69.0**
West	31.3	64.9	68.9	75.7	**68.3**
Adult Education[2]					
Less than high school	N/A	74.5	72.2	72.8	**73.0**
High school graduate	N/A	68.1	73.1	75.6	**74.0**
Some college	N/A	68.3	77.1	79.3	**76.7**
College graduate	N/A	62.3	65.3	72.8	**70.6**
Current Employment[3]					
Full-time	N/A	74.5	74.1	77.6	**76.4**
Part-time	N/A	64.4	72.7	76.4	**72.7**
Unemployed	N/A	74.8	75.3	81.5	**78.4**
Other[4]	N/A	59.5	58.6	71.1	**68.8**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 8.2 Percentage Reporting Cigarette Use in the Past Year, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**23.8**	**47.1**	**36.6**	**26.7**	**30.6**
Gender					
Male	23.6	50.3	39.9	28.6	**32.8**
Female	23.9	43.9	33.3	24.9	**28.4**
Race/Ethnicity[1]					
White, non-Hispanic	26.9	52.7	38.4	25.7	**30.8**
Black, non-Hispanic	16.2	34.3	33.1	33.3	**31.2**
Hispanic	20.4	37.7	29.4	29.3	**29.6**
Population Density					
Large metro	20.8	41.6	36.5	26.7	**29.5**
Small metro	24.2	49.8	35.3	25.1	**30.1**
Nonmetro	28.6	52.6	39.0	29.1	**33.2**
Region					
Northeast	24.4	42.2	36.5	23.7	**27.9**
North Central	27.8	57.7	43.5	29.3	**35.0**
South	22.9	46.3	35.2	27.2	**30.5**
West	20.4	41.2	31.9	25.7	**28.2**
Adult Education[2]					
Less than high school	N/A	58.9	52.3	32.0	**39.0**
High school graduate	N/A	47.6	42.1	32.5	**36.5**
Some college	N/A	43.1	38.4	26.8	**32.3**
College graduate	N/A	36.5	21.7	15.7	**18.1**
Current Employment[3]					
Full-time	N/A	50.8	37.4	29.6	**34.2**
Part-time	N/A	43.2	30.2	21.0	**28.2**
Unemployed	N/A	60.6	57.6	49.6	**54.3**
Other[4]	N/A	39.2	30.1	22.5	**25.0**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 8.3 **Percentage Reporting Cigarette Use in the Past Month, by Age Group and Demographic Characteristics: 1998**

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**18.2**	**41.6**	**32.5**	**25.1**	**27.7**
Gender					
Male	18.7	45.3	34.6	26.9	**29.7**
Female	17.7	37.8	30.5	23.4	**25.7**
Race/Ethnicity[1]					
White, non-Hispanic	20.5	46.9	34.1	24.1	**27.9**
Black, non-Hispanic	13.7	30.7	31.5	32.2	**29.4**
Hispanic	15.1	31.5	25.4	27.0	**25.8**
Population Density					
Large metro	15.7	36.9	31.7	24.9	**26.5**
Small metro	18.5	43.6	31.3	23.7	**27.2**
Nonmetro	22.5	46.8	36.6	27.5	**30.5**
Region					
Northeast	18.1	37.7	32.2	22.7	**25.5**
North Central	21.6	52.2	38.9	27.8	**32.0**
South	18.0	42.1	32.1	25.5	**27.9**
West	15.3	32.7	27.0	23.6	**24.5**
Adult Education[2]					
Less than high school	N/A	54.7	50.1	30.5	**36.9**
High school graduate	N/A	43.1	39.3	31.0	**34.3**
Some college	N/A	37.0	34.3	25.0	**29.2**
College graduate	N/A	27.1	15.4	14.2	**15.2**
Current Employment[3]					
Full-time	N/A	45.3	32.7	27.7	**31.2**
Part-time	N/A	37.0	27.4	19.9	**25.5**
Unemployed	N/A	53.9	52.3	47.2	**50.1**
Other[4]	N/A	34.5	28.8	21.2	**23.3**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998

Table 8.4 Percentage Reporting Cigarette Use in Their Lifetime, the Past Year, and the Past Month, by Age: 1998

		Time Period		
Age Group in Years	**(Unweighted *n*)**	**Lifetime**	**Past Year**	**Past Month**
Total	(25,500)	69.7	30.6	27.7
12-17 Years	(6,778)	35.8	23.8	18.2
12-13	(2,240)	16.8	11.4	8.0
14-15	(2,356)	37.2	24.6	18.2
16-17	(2,182)	54.5	36.0	29.3
18-25 Years	(7,318)	68.8	47.1	41.6
18-20	(2,981)	66.2	48.3	43.1
21-25	(4,337)	70.7	46.3	40.6
26-34 Years	(4,537)	71.8	36.6	32.5
26-29	(2,017)	69.6	37.7	33.1
30-34	(2,520)	73.7	35.6	32.0
35+ Years	(6,867)	75.2	26.7	25.1
35-39	(1,381)	74.1	34.2	32.8
40-44	(1,179)	77.2	31.4	29.0
45-49	(1,157)	78.5	31.0	29.8
50+	(3,150)	74.1	21.8	20.2

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 8.5 **Percentage Reporting Cigarette Use in Their Lifetime, the Past Year, and the Past Month, by Age Group, Race/Ethnicity, and Gender: 1998**

Race/Ethnicity[1] and Gender	Age Group in Years				Total
	12-17	18-25	26-34	35+	
(Unweighted *n*)					
White, non-Hispanic male	(1,576)	(1,367)	(805)	(1,555)	**(5,303)**
Black, non-Hispanic male	(668)	(742)	(362)	(567)	**(2,339)**
Hispanic male	(910)	(974)	(622)	(537)	**(3,043)**
White, non-Hispanic female	(1,515)	(1,559)	(1,085)	(2,247)	**(6,406)**
Black, non-Hispanic female	(706)	(1,056)	(691)	(1,023)	**(3,476)**
Hispanic female	(959)	(1,213)	(810)	(770)	**(3,752)**
A. Used Cigarettes in Their Lifetime					
White, non-Hispanic male	38.5	76.6	79.9	83.7	**77.8**
Black, non-Hispanic male	29.7	59.9	68.8	77.6	**66.1**
Hispanic male	33.7	69.9	72.9	78.6	**69.5**
White, non-Hispanic female	40.9	73.2	73.8	72.2	**69.8**
Black, non-Hispanic female	22.6	48.8	59.0	66.9	**57.5**
Hispanic female	30.7	49.4	46.9	50.9	**47.1**
B. Used Cigarettes in the Past Year					
White, non-Hispanic male	25.3	53.6	40.1	26.8	**31.9**
Black, non-Hispanic male	19.6	40.3	37.8	37.8	**35.6**
Hispanic male	20.8	45.7	34.9	36.1	**35.4**
White, non-Hispanic female	28.5	51.8	36.8	24.8	**29.8**
Black, non-Hispanic female	12.9	28.9	29.0	30.0	**27.6**
Hispanic female	19.9	29.1	23.2	22.8	**23.5**
C. Used Cigarettes in the Past Month					
White, non-Hispanic male	20.0	48.8	34.5	25.0	**28.9**
Black, non-Hispanic male	16.9	36.9	36.2	36.7	**33.8**
Hispanic male	15.4	39.5	30.4	33.7	**31.4**
White, non-Hispanic female	21.0	44.9	33.6	23.2	**26.9**
Black, non-Hispanic female	10.6	25.0	27.6	28.9	**25.9**
Hispanic female	14.7	23.0	19.7	20.6	**20.0**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

[1] The category "other" for race/ethnicity is not included.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 8.6 Percentage Distribution of Levels of Past Month Cigarette Use, by Demographic Characteristics: 1998

Demographic Characteristic	(Unweighted *n*)	Past Month Use[1]		
		None	Less Than a Pack a Day	A Pack or More a Day
Total	(25,142)	73.3	15.3	11.4
Gender				
Male	(11,075)	71.2	15.4	13.4
Female	(14,067)	75.1	15.2	9.6
Age Group in Years				
12-17	(6,660)	83.3	14.7	2.0
18-25	(7,203)	59.3	28.9	11.9
26-34	(4,494)	68.0	19.8	12.2
35+	(6,785)	75.8	11.4	12.8
Race/Ethnicity[2]				
White, non-Hispanic	(11,574)	73.0	13.8	13.3
Black, non-Hispanic	(5,710)	71.6	21.4	7.1
Hispanic	(6,695)	75.5	19.3	5.2
Population Density				
Large metro	(12,801)	74.5	15.6	9.9
Small metro	(7,530)	73.5	15.7	10.8
Nonmetro	(4,811)	70.3	14.2	15.5
Region				
Northeast	(3,084)	75.4	14.5	10.2
North Central	(3,605)	69.0	16.0	15.0
South	(8,379)	73.0	15.2	11.8
West	(10,074)	76.4	15.4	8.2
Adult Education[3]				
Less than high school	(4,587)	63.9	18.2	17.9
High school graduate	(6,193)	66.9	17.9	15.2
Some college	(4,743)	71.2	16.4	12.3
College graduate	(2,959)	85.6	9.0	5.4
Current Employment[4]				
Full-time	(9,864)	69.6	16.4	14.1
Part-time	(2,484)	75.3	15.4	9.2
Unemployed	(1,185)	50.1	28.2	21.7
Other[5]	(4,949)	77.8	12.2	10.0

Note 1. Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

Note 2. Only past month cigarette users who reported the number of cigarettes they smoked per day during the past 30 days are included in this table. Thus, the actual unweighted *n*'s are smaller than appear in Table 1.1 because of differing patterns of nonresponse for the question on cigarettes per day.

[1] Less than a pack a day is defined as averaging 15 cigarettes or fewer per day in the past month. A pack a day or more is defined as averaging 16 or more cigarettes per day in the past month.

[2] The category "other" for race/ethnicity is not included.

[3] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,482).

[4] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,482).

[5] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 8.7 Percentage Reporting Use of Selected Drugs in the Past Month, by Age Group and Cigarette Use in the Past Month: 1998

Age Group in Years/ Drugs Used in the Past Month	Cigarette Use in the Past Month: No[1]	Cigarette Use in the Past Month: Yes	Total
Total			
(Unweighted *n*)	**(18,379)**	**(7,121)**	**(25,500)**
Alcohol	45.3	68.2	**51.7**
Marijuana	1.8	13.6	**5.0**
Drugs other than marijuana	1.0	6.3	**2.5**
Nonmedical use of any psychotherapeutic[2]	0.5	2.7	**1.1**
Cocaine	0.1	2.5	**0.8**
Any illicit drug use[3]	2.5	16.1	**6.2**
12-17 Years			
(Unweighted *n*)	(5,597)	(1,181)	**(6,778)**
Alcohol	10.9	55.8	**19.1**
Marijuana	2.4	34.3	**8.3**
Drugs other than marijuana	1.5	14.9	**4.0**
Nonmedical use of any psychotherapeutic[2]	0.7	6.3	**1.7**
Cocaine	0.1	3.8	**0.8**
Any illicit drug use[3]	3.4	39.1	**9.9**
18-25 Years			
(Unweighted *n*)	(4,714)	(2,604)	**(7,318)**
Alcohol	46.2	79.4	**60.0**
Marijuana	4.2	27.3	**13.8**
Drugs other than marijuana	2.2	12.4	**6.5**
Nonmedical use of any psychotherapeutic[2]	1.2	4.8	**2.7**
Cocaine	0.5	4.0	**2.0**
Any illicit drug use[3]	5.4	31.1	**16.1**
26-34 Years			
(Unweighted *n*)	(3,089)	(1,448)	**(4,537)**
Alcohol	55.0	73.0	**60.9**
Marijuana	2.4	11.9	**5.5**
Drugs other than marijuana	1.2	6.2	**2.8**
Nonmedical use of any psychotherapeutic[2]	0.7	2.6	**1.3**
Cocaine	0.2	3.3	**1.2**
Any illicit drug use[3]	3.3	14.7	**7.0**
35+ Years			
(Unweighted *n*)	(4,979)	(1,888)	**(6,867)**
Alcohol	49.3	64.2	**53.1**
Marijuana	1.1	6.8	**2.5**
Drugs other than marijuana	0.6	3.2	**1.3**
Nonmedical use of any psychotherapeutic[2]	0.4	1.6	**0.7**
Cocaine	0.1	1.6	**0.5**
Any illicit drug use[3]	1.6	8.5	**3.3**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

[1] Includes respondents who reported never using cigarettes, as well as those who reported previous but not past month use.

[2] Nonmedical use of any prescription-type stimulant, sedative, tranquilizer, or analgesic; does not include over-the-counter drugs.

[3] Use of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP] and lysergic acid diethylamide [LSD]), heroin, or nonmedical use of psychotherapeutics at least once.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 8.8 Percentage Reporting Smokeless Tobacco Use in Their Lifetime, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				
	12-17	18-25	26-34	35+	Total
Total	**8.9**	**24.1**	**23.4**	**15.6**	**17.2**
Gender					
Male	14.2	39.2	40.9	27.9	**30.1**
Female	3.2	8.6	6.1	4.8	**5.3**
Race/Ethnicity[1]					
White, non-Hispanic	11.4	32.0	29.5	17.2	**20.2**
Black, non-Hispanic	1.9	6.5	9.7	14.4	**10.7**
Hispanic	4.1	9.1	9.0	6.6	**7.2**
Population Density					
Large metro	4.8	16.3	19.3	11.9	**13.0**
Small metro	8.7	27.4	24.7	17.0	**18.8**
Nonmetro	16.6	32.5	31.2	20.6	**23.0**
Region					
Northeast	5.4	19.4	20.1	10.1	**12.3**
North Central	11.5	30.4	26.5	14.6	**18.1**
South	10.6	23.0	24.0	19.6	**19.8**
West	6.0	22.8	22.3	15.5	**16.5**
Adult Education[2]					
Less than high school	N/A	22.0	18.4	18.4	**19.0**
High school graduate	N/A	24.6	22.8	14.5	**17.5**
Some college	N/A	25.7	24.4	16.2	**19.7**
College graduate	N/A	20.4	25.3	14.7	**17.2**
Current Employment[3]					
Full-time	N/A	30.3	27.7	18.7	**22.3**
Part-time	N/A	20.8	13.6	9.3	**13.0**
Unemployed	N/A	22.8	21.0	18.1	**20.0**
Other[4]	N/A	14.7	8.2	13.1	**12.9**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.
[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).
[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).
[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 8.9 Percentage Reporting Smokeless Tobacco Use in the Past Year, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years 12-17	18-25	26-34	35+	Total
Total	**3.7**	**9.0**	**6.0**	**3.1**	**4.4**
Gender					
Male	6.6	16.3	11.7	5.7	**8.2**
Female	0.7	1.5	0.4	0.8	**0.8**
Race/Ethnicity[1]					
White, non-Hispanic	5.0	12.1	8.1	3.5	**5.3**
Black, non-Hispanic	0.6	2.0	1.5	3.3	**2.4**
Hispanic	1.5	3.0	1.4	0.9	**1.5**
Population Density					
Large metro	2.3	4.4	4.3	1.5	**2.4**
Small metro	3.6	9.6	5.3	3.1	**4.4**
Nonmetro	6.4	16.5	11.7	6.2	**8.2**
Region					
Northeast	2.3	6.6	4.5	1.4	**2.6**
North Central	4.8	11.6	7.2	3.7	**5.4**
South	4.5	9.2	6.9	4.2	**5.3**
West	2.5	7.7	4.9	2.2	**3.4**
Adult Education[2]					
Less than high school	N/A	8.6	5.5	5.4	**5.9**
High school graduate	N/A	9.5	7.6	3.2	**4.9**
Some college	N/A	9.5	5.7	2.8	**4.7**
College graduate	N/A	5.8	4.8	1.7	**2.6**
Current Employment[3]					
Full-time	N/A	11.3	7.4	3.6	**5.5**
Part-time	N/A	7.4	3.6	1.7	**3.5**
Unemployed	N/A	7.2	5.1	2.1	**4.1**
Other[4]	N/A	6.1	0.9	2.9	**3.1**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.
[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).
[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).
[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 8.10 Percentage Reporting Smokeless Tobacco Use in the Past Month, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				
	12-17	18-25	26-34	35+	Total
Total	**1.2**	**5.4**	**4.3**	**2.6**	**3.1**
Gender					
Male	2.1	10.5	8.3	4.8	**5.9**
Female	0.2	0.3	0.3	0.7	**0.5**
Race/Ethnicity[1]					
White, non-Hispanic	1.6	7.5	5.6	2.9	**3.7**
Black, non-Hispanic	0.1	1.1	1.5	2.9	**2.0**
Hispanic	0.5	1.2	1.0	0.5	**0.8**
Population Density					
Large metro	0.5	2.6	3.2	1.2	**1.7**
Small metro	0.9	5.6	3.6	2.6	**3.0**
Nonmetro	3.0	10.5	8.2	5.2	**6.0**
Region					
Northeast	0.9	4.6	3.2	1.3	**1.9**
North Central	1.1	6.6	5.3	3.1	**3.7**
South	1.7	6.1	5.2	3.5	**3.9**
West	0.8	3.7	2.8	1.8	**2.1**
Adult Education[2]					
Less than high school	N/A	6.0	2.6	4.3	**4.3**
High school graduate	N/A	6.5	6.0	2.7	**3.9**
Some college	N/A	4.4	4.2	2.4	**3.2**
College graduate	N/A	4.1	3.2	1.4	**1.9**
Current Employment[3]					
Full-time	N/A	7.6	5.2	2.8	**4.0**
Part-time	N/A	3.9	2.4	1.6	**2.3**
Unemployed	N/A	3.7	4.1	1.8	**2.8**
Other[4]	N/A	2.9	0.6	2.6	**2.5**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 8.11 Percentage Reporting Smokeless Tobacco Use in Their Lifetime, the Past Year, and the Past Month, by Age Group, Race/Ethnicity, and Gender: 1998

Race/Ethnicity[1] and Gender	Age Group in Years				Total
	12-17	18-25	26-34	35+	
(Unweighted *n*)					
White, non-Hispanic male	(1,576)	(1,367)	(805)	(1,555)	**(5,303)**
Black, non-Hispanic male	(668)	(742)	(362)	(567)	**(2,339)**
Hispanic male	(910)	(974)	(622)	(537)	**(3,043)**
White, non-Hispanic female	(1,515)	(1,559)	(1,085)	(2,247)	**(6,406)**
Black, non-Hispanic female	(706)	(1,056)	(691)	(1,023)	**(3,476)**
Hispanic female	(959)	(1,213)	(810)	(770)	**(3,752)**
A. Used Smokeless Tobacco in Their Lifetime					
White, non-Hispanic male	18.7	51.8	51.9	31.5	**35.8**
Black, non-Hispanic male	3.0	11.0	15.1	20.7	**15.5**
Hispanic male	5.6	14.2	14.9	11.1	**11.7**
White, non-Hispanic female	3.8	11.5	7.3	4.5	**5.6**
Black, non-Hispanic female	0.7	2.4	5.2	9.7	**6.8**
Hispanic female	2.5	3.6	2.3	2.3	**2.6**
B. Used Smokeless Tobacco in the Past Year					
White, non-Hispanic male	8.8	22.0	16.0	6.7	**10.2**
Black, non-Hispanic male	1.3	3.1	1.6	3.5	**2.8**
Hispanic male	2.1	5.0	2.4	1.2	**2.3**
White, non-Hispanic female	0.9	1.8	0.3	0.6	**0.7**
Black, non-Hispanic female	*	0.9	1.5	3.1	**2.1**
Hispanic female	0.9	0.8	0.2	0.7	**0.6**
C. Used Smokeless Tobacco in the Past Month					
White, non-Hispanic male	2.9	14.4	11.2	5.7	**7.3**
Black, non-Hispanic male	0.2	1.6	1.6	2.8	**2.0**
Hispanic male	0.7	2.3	1.7	0.8	**1.3**
White, non-Hispanic female	0.3	0.2	0.1	0.4	**0.3**
Black, non-Hispanic female	*	0.7	1.4	3.0	**2.0**
Hispanic female	0.2	*	0.2	0.3	**0.2**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

*Low precision; no estimate reported.

[1] The category "other" for race/ethnicity is not included.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 8.12 Percentage Reporting Cigar Use in Their Lifetime, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				
	12-17	18-25	26-34	35+	Total
Total	**18.6**	**39.3**	**35.9**	**36.0**	**34.6**
Gender					
Male	22.3	53.8	52.9	60.5	**54.2**
Female	14.8	24.5	19.2	14.5	**16.5**
Race/Ethnicity[1]					
White, non-Hispanic	21.9	45.7	41.6	40.1	**39.2**
Black, non-Hispanic	10.9	25.2	26.0	23.7	**22.7**
Hispanic	14.8	26.9	21.5	19.1	**20.4**
Population Density					
Large metro	16.4	34.7	36.2	34.4	**32.9**
Small metro	19.4	42.2	34.6	36.8	**35.5**
Nonmetro	21.5	42.6	37.6	37.8	**36.6**
Region					
Northeast	14.8	34.4	33.7	34.1	**32.3**
North Central	22.9	41.9	43.0	38.2	**37.8**
South	19.3	38.9	32.8	35.5	**33.8**
West	16.2	41.1	35.7	36.2	**34.6**
Adult Education[2]					
Less than high school	N/A	40.5	27.6	28.1	**30.0**
High school graduate	N/A	38.2	32.6	32.4	**33.3**
Some college	N/A	40.0	38.3	41.1	**40.4**
College graduate	N/A	38.5	41.1	41.5	**41.3**
Current Employment[3]					
Full-time	N/A	44.4	40.2	42.9	**42.4**
Part-time	N/A	38.5	31.4	26.9	**30.7**
Unemployed	N/A	43.1	31.5	36.0	**37.1**
Other[4]	N/A	28.7	17.9	29.3	**28.4**

Note: Estimates in this table are based on reports of cigar use collected on a "non-core" section of the NHSDA questionnaire.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.
[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted n=18,722).
[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted n=18,722).
[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 8.13 Percentage Reporting Cigar Use in the Past Month, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years 12-17	18-25	26-34	35+	Total
Total	**5.6**	**11.9**	**8.6**	**5.7**	**6.9**
Gender					
Male	7.5	19.0	14.3	10.4	**11.9**
Female	3.7	4.6	3.1	1.5	**2.3**
Race/Ethnicity[1]					
White, non-Hispanic	6.4	13.4	10.0	6.1	**7.5**
Black, non-Hispanic	3.5	10.2	7.3	4.5	**5.8**
Hispanic	5.3	8.9	4.3	3.7	**5.0**
Population Density					
Large metro	4.8	9.9	8.9	6.5	**7.1**
Small metro	6.2	13.5	7.9	5.8	**7.3**
Nonmetro	6.3	12.3	9.4	4.0	**6.0**
Region					
Northeast	4.3	12.3	8.0	7.4	**7.8**
North Central	6.9	13.7	11.4	5.2	**7.5**
South	6.1	12.1	7.7	4.8	**6.3**
West	4.7	9.3	7.9	6.0	**6.6**
Adult Education[2]					
Less than high school	N/A	14.8	7.5	4.5	**6.5**
High school graduate	N/A	11.8	7.6	4.2	**5.9**
Some college	N/A	11.5	8.2	7.0	**8.1**
College graduate	N/A	7.8	10.7	7.3	**8.0**
Current Employment[3]					
Full-time	N/A	12.8	10.0	8.1	**9.1**
Part-time	N/A	11.0	7.6	3.3	**6.0**
Unemployed	N/A	11.5	6.0	14.3	**11.8**
Other[4]	N/A	10.7	3.2	2.4	**3.4**

Note: Estimates in this table are based on reports of cigar use collected on a "non-core" section of the NHSDA questionnaire.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 8.14 Percentage Reporting Cigar Use in Their Lifetime and the Past Month, by Age Group, Race/Ethnicity, and Gender: 1998

Race/Ethnicity[1] and Gender	Age Group in Years				Total
	12-17	18-25	26-34	35+	
(Unweighted *n*)					
White, non-Hispanic male	(1,576)	(1,367)	(805)	(1,555)	**(5,303)**
Black, non-Hispanic male	(668)	(742)	(362)	(567)	**(2,339)**
Hispanic male	(910)	(974)	(622)	(537)	**(3,043)**
White, non-Hispanic female	(1,515)	(1,559)	(1,085)	(2,247)	**(6,406)**
Black, non-Hispanic female	(706)	(1,056)	(691)	(1,023)	**(3,476)**
Hispanic female	(959)	(1,213)	(810)	(770)	**(3,752)**
A. Used Cigars in Their Lifetime					
White, non-Hispanic male	25.5	61.6	60.6	67.0	**61.3**
Black, non-Hispanic male	13.3	37.8	42.0	43.4	**37.9**
Hispanic male	19.1	36.1	31.4	28.9	**29.4**
White, non-Hispanic female	18.1	29.2	22.7	16.1	**18.7**
Black, non-Hispanic female	8.5	13.5	12.5	8.9	**10.2**
Hispanic female	10.2	17.0	10.3	9.6	**11.1**
B. Used Cigars in the Past Month					
White, non-Hispanic male	8.5	21.4	16.3	11.2	**12.9**
Black, non-Hispanic male	4.7	16.6	12.0	8.3	**9.9**
Hispanic male	6.6	13.4	7.4	5.3	**7.4**
White, non-Hispanic female	4.2	5.0	3.7	1.5	**2.4**
Black, non-Hispanic female	2.3	4.3	3.4	1.7	**2.5**
Hispanic female	3.9	4.0	0.7	2.2	**2.5**

Note: Estimates in this table are based on reports of cigar use collected on a "non-core" section of the NHSDA questionnaire. Information about use of cigars in the past year (but less recently than the past month) was not collected.

[1] The category "other" for race/ethnicity is not included.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 8.15 Percentage Reporting Use of Selected Drugs in the Past Month, by Age Group and Cigar Use in the Past Month: 1998

Age Group in Years/ Drugs Used in the Past Month	Cigar Use in the Past Month No[1]	Cigar Use in the Past Month Yes	Total
Total			
(Unweighted *n*)	**(23,780)**	**(1,720)**	**(25,500)**
Alcohol	49.2	85.0	**51.7**
Marijuana	4.1	17.2	**5.0**
Drugs other than marijuana	2.0	8.1	**2.5**
Nonmedical use of any psychotherapeutic[2]	1.0	3.3	**1.1**
Cocaine	0.6	3.6	**0.8**
Any illicit drug use[3]	5.2	20.0	**6.2**
12-17 Years			
(Unweighted *n*)	(6,418)	(360)	**(6,778)**
Alcohol	16.2	67.2	**19.1**
Marijuana	6.2	43.4	**8.3**
Drugs other than marijuana	3.2	17.5	**4.0**
Nonmedical use of any psychotherapeutic[2]	1.4	6.1	**1.7**
Cocaine	0.6	4.9	**0.8**
Any illicit drug use[3]	7.7	48.3	**9.9**
18-25 Years			
(Unweighted *n*)	(6,576)	(742)	**(7,318)**
Alcohol	56.2	88.1	**60.0**
Marijuana	11.3	31.9	**13.8**
Drugs other than marijuana	5.5	13.4	**6.5**
Nonmedical use of any psychotherapeutic[2]	2.4	5.0	**2.7**
Cocaine	1.5	5.1	**2.0**
Any illicit drug use[3]	13.5	35.7	**16.1**
26-34 Years			
(Unweighted *n*)	(4,241)	(296)	**(4,537)**
Alcohol	58.2	88.9	**60.9**
Marijuana	4.7	13.2	**5.5**
Drugs other than marijuana	2.6	5.4	**2.8**
Nonmedical use of any psychotherapeutic[2]	1.2	2.8	**1.3**
Cocaine	1.1	2.0	**1.2**
Any illicit drug use[3]	6.1	16.4	**7.0**
35+ Years			
(Unweighted *n*)	(6,545)	(322)	**(6,867)**
Alcohol	51.1	85.0	**53.1**
Marijuana	2.2	7.9	**2.5**
Drugs other than marijuana	1.0	5.3	**1.3**
Nonmedical use of any psychotherapeutic[2]	0.6	2.3	**0.7**
Cocaine	0.3	3.4	**0.5**
Any illicit drug use[3]	2.9	9.8	**3.3**

Note: Estimates in this table are based on reports of cigar use collected on a "non-core" section of the NHSDA questionnaire.

[1] Includes respondents who reported never using cigars, as well as those who reported previous but not past month use.
[2] Nonmedical use of any prescription-type stimulant, sedative, tranquilizer, or analgesic; does not include over-the-counter drugs.
[3] Use of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP] and lysergic acid diethylamide [LSD]), heroin, or nonmedical use of psychotherapeutics at least once.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

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Chapter 9: Problems Associated with Marijuana, Cocaine, Alcohol, and Cigarettes

Introduction

The use of marijuana, cocaine, alcohol, or cigarettes can contribute to social, physical, and psychological problems for the user and for society. Each year, the use or abuse of these substances exacts a toll on the Nation. Substance use has been associated with increased crime rates and a greater burden on the health care system, and it can limit the potential of youths and the performance of the workforce (see Bray, Marsden, & Vincus, 1999a; Institute for Health Policy, 1993). In 1995, the cost of alcohol and drug abuse to society was an estimated $276.3 billion, primarily accounted for by lost productivity due to premature death, illness, and criminal victimization (Harwood, Fountain, & Livermore, 1998). For example, in 1998 nearly 16,000 individuals lost their lives in alcohol-related traffic accidents (National Highway Traffic Safety Administration, 1999), and in 1996 more than 20,000 new cases of the human immunodeficiency virus (HIV) were contracted through injection drug use (Centers for Disease Control and Prevention, 1998).

To combat substance abuse's negative effects, it is necessary to identify individuals most in need of substance abuse treatment or prevention services. People experiencing multiple, current problems related to their use of a drug represent a group likely to have a high need for such services. This chapter first discusses how drug-related problems were measured in the 1998 NHSDA (also see discussion in Greenblatt and Gfroerer, 1998a). Estimates of the prevalence of problems related to the use of marijuana, cocaine, alcohol, and cigarettes then are presented. Estimates are given by age group for the total population, for users of these substances in the past year, and for more frequent or heavier users in the past year or past month. Although estimates are given for the total population (including nonusers as well as users in the denominator), the discussion emphasizes problems experienced by people who reported using a given drug in the past year or who reported more frequent or heavier use in the past year or past month.

A comparison of data from the 1995, 1996, and 1997 NHSDAs indicates that rates of problems associated with substance use have remained fairly stable over the past 3 years of the survey. In the total population, problems associated with the use of marijuana have been reported by about 4%, problems from cocaine use by less than 1%, problems due to alcohol use by roughly 15%, and problems from cigarette use by about 20% (OAS, 1997, 1998a, 1999a).

Measurement of Problems Related to Substance Use

Respondents to the 1998 NHSDA who used drugs in the 12 months prior to the interview were instructed to answer a series of questions about problems associated with their drug use that occurred in the same 12-month period. Questions on problems related to use of different drugs were patterned after symptoms of dependence, according to criteria set in the American Psychiatric Association's (APA's) *Diagnostic and Statistical Manual of Mental Disorders, 4th Edition* (DSM-IV) (APA, 1994). Readers should not interpret reports of these problems as being necessarily equivalent to a clinical diagnosis of drug dependence. Such a diagnosis must be made by a professional after careful consideration of many factors. In general, reports of three or more drug-related problems may be suggestive of dependence and indicate the need for evaluation or services for drug use.

Respondents were asked whether they had experienced any of the following seven behavioral or psychological problems in the past year, which potentially and cumulatively suggest drug dependence:

1. wanting to or trying to stop or cut down on use of the drug but being unable to do so;
2. needing larger amounts of the drug to get the same effect;
3. spending a great deal of time (i.e., at least a month) getting, using, or getting over the effects of using the drug;
4. using the drug much more often or in larger amounts than intended;
5. reducing important activities (e.g., going to work or school, caring for children, or engaging in recreational activity) due to use of the drug;
6. experiencing emotional or psychological problems caused by use of the drug; and
7. experiencing physical health problems caused by use of the drug (see Note 2 in Tables 9.1 through 9.4 for precise question item wordings).

The definitions of these problems differ in number and kind from those used in the 1994 NHSDA and in earlier years. Consequently, data in this chapter cannot be compared directly with NHSDA data prior to 1995.

In addition to estimates of the prevalence of each of these specific problems, three summary measures were constructed for marijuana, cocaine, alcohol, and cigarettes:

- occurrence of *any* of the above seven problems in the past 12 months due to use of a given drug,
- occurrence of *two or more* of the above problems in the past 12 months for a given drug, and
- occurrence of *three or more* of the above problems in the past 12 months for a given drug.

These summary measures refer to the number of specific *types* of problems (from the list of seven) that occurred during the past year related to the use of a particular drug. These measures do not refer to the total number of times that each specific problem may have occurred.

As noted previously, respondents who had not used illicit drugs, alcohol, or tobacco in the past year were instructed to skip these questions. A small proportion of the sample, however, chose to skip these questions even though they had reported earlier in the interview that they had used at least one of the substances at some time in the past year. For the analyses in this chapter, these respondents were treated as though they had no substance-associated problems in the past year. In addition, some respondents who did not report use of a given drug on that drug's answer sheet subsequently reported in a later section of the interview that they experienced problems related to their use of that drug in the past 12 months. Data from these respondents on drug-related problems also were disregarded in the absence of prior indications of past year use.[1] Given these exclusions, the data here should be interpreted with some caution because some estimates of drug-related problems may be conservative. This especially may be the case for cocaine, which had the lowest prevalence of past year use of the four drugs examined in this chapter; consequently, excluding or including respondents in estimates of cocaine-related problems could have a relatively greater impact on estimates for cocaine than for the other three drugs.

Marijuana (Table 9.1)

An estimated 3.6% of the total population aged 12 or older experienced one or more problems in the past 12 months that were related to their use of marijuana in this same time period, 2.3% experienced at least two problems, and an additional 1.5% experienced at least three components of dependence related to their marijuana use. Among people aged 12 or older who used marijuana at least once in the past year, 42% had at least one problem related to their use, 27% had two or more problems, and 17% had at least three problems. Given an estimate of 18,710,000 past year marijuana users (see Table 2.1), these percentages translate to almost 8 million past year marijuana users who experienced one or more marijuana-related problems in this same time period, almost 5 million past year users who experienced two or more problems, and about 3.3 million past year users who experienced three or more problems. Among those who used marijuana on 12 or more days during the past year, 59% had at least one problem, 41% had at least two problems, and 28% experienced three or more symptoms of marijuana dependence. Young adults aged 18 to 25 and youths aged 12 to 17 had the highest percentages of individuals who experienced components of dependence related to marijuana use. Past year marijuana use also was most prevalent among these two age groups (see Table 3.2).

The most frequently reported problem related to marijuana use across all age groups and frequency-of-use levels was having had a period of a month or more during the past year in which people spent a great deal of time getting marijuana, using it, or getting over its effects. About 28% of past year marijuana users and 42% of people who used marijuana on 12 or more days in the past year reported this problem.

Use of marijuana more often or in larger amounts than intended and building up tolerance to marijuana's effects were typically the *next* most commonly occurring problems among past year users and among people who used marijuana on 12 or more days in the past 12 months. About 21% of past year marijuana users built up tolerance to the effects of marijuana, and 20% used the drug more often or in larger amounts than they intended in the past 12 months. Among people who used marijuana on 12 or more days in the past year, 33% indicated symptoms suggestive of the development of tolerance, and 30% used the drug more often or in larger amounts than intended.

Cocaine (Table 9.2)

An estimated 0.7% of the population aged 12 or older experienced at least one problem that was related to their cocaine use in the past year, 0.4% experienced at least two problems, and 0.3% experienced at least three components of dependence. Among people aged 12 or older who used cocaine at least once in the past year, 38% reported at least one of the seven cocaine-related problems, nearly one-fourth (24%) experienced two or more problems, and 18% experienced three or more problems. Based on an estimate of 3,811,000 past year cocaine users (Table 2.1), these percentages translate to about 1.4 million past year cocaine users who experienced one or more problems, about 900,000 users who experienced two or more problems, and about 686,000 users who experienced three or more problems. About 56% of people aged 12 or older who used cocaine on 12 or more days in the past year experienced at least one cocaine-related problem, and 43% reported two or more problems.

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[1] This exclusion of data from respondents who reported past year drug problems in the absence of reported use in the past year was not done for the 1994 to 1996 NHSDA Main Findings. Therefore, the 1998 total population estimates may be somewhat lower than those reported in 1994 to 1996.

In the total population, the most commonly reported problem among people who used cocaine at least once in the past year was that cocaine had caused them psychological problems (19%), followed by extended periods spent getting, using, or getting over the effects of cocaine (18%), wanting or unsuccessfully trying to cut down on use (17%), and a reduction in important activities (17%). This pattern, however, varied with age. Among youths aged 12 to 17 who were past year users, the most commonly occurring problem was a reduction in important activities (20%), followed by wanting or trying to reduce use but not being able to do so (19%).

Among people aged 12 or older who used cocaine on 12 or more days in the past year, about 34% experienced a related reduction in important activities. Psychological problems also were experienced by about 34% of this group of frequent users. About 32% spent an extended period of time getting, using, or getting over the effects of the drug, and 30% used cocaine more than they had intended.

Alcohol (Table 9.3)

An estimated 15% of people aged 12 or older reported having had at least one problem related to their alcohol use in the past year, 8% reported two or more problems, and 5% reported three or more components of dependence. Among people who consumed at least some alcohol in the past year, more than one in five (23%), or about 31.9 million people (based on the estimated 139,807,000 past year alcohol users in Table 2.1), experienced at least one alcohol-related problem, about one in eight experienced two or more problems (13%; or about 18 million users), and almost 8% (about 10.8 million users) experienced three or more problems.

The percentages of alcohol-related problems in the past year were considerably higher among heavy drinkers (defined as people who had five or more drinks per occasion on 5 or more days during the past 30 days). Specifically, over 66% of current heavy drinkers had one or more alcohol-related problems in the past year, more than half reported two or more problems (52%), and over one-third reported three or more problems (36%).

Nearly 40% of youths and young adults who used alcohol in the past year experienced at least one alcohol-related problem. Among heavy alcohol users, 77% of the 12 to 17 year olds and 75% of 18 to 25 year olds reported experiencing at least one alcohol-related problem.

The three most commonly occurring alcohol-related problems in each drinking category (i.e., total population, past year alcohol users, and heavy drinkers) and within each age group were (a) extended periods of time spent getting, using, or getting over the effects of alcohol; (b) use of alcohol more often or in larger amounts than intended; and (c) development of tolerance to the effects of alcohol. Notably, each of these three problems was reported by at least 20% of youths aged 12 to 17 who used any alcohol in the past year and by around half of youths who were heavy alcohol drinkers.

Cigarettes (Table 9.4)

Almost one-fifth of the total population aged 12 or older (18%) reported at least one problem in the past year associated with smoking cigarettes, 14% had two or more problems, and 10% had three or more symptoms of dependence. Among past year cigarette smokers (66,735,000 in 1998, see Table 2.1), 60%, or an estimated 40 million smokers, had at least one problem, 46% (31 million) had two or more problems, and 34% (22 million) had three or more problems attributed to their cigarette use. Among heavy smokers (defined as currently smoking about a pack or more a day), more than three out of four reported one problem (77%), 63% reported two or more problems, and 49% reported three or more problems.

The most frequently cited problems among heavy smokers were wanting or trying to stop or cut down but not being able to do so and spending a great deal of time getting or using cigarettes or getting over the effects of cigarettes (58%), followed by smoking more cigarettes or smoking for longer periods than intended (51%).

Discussion

During 1998, about 1 in 6 past year marijuana users, 1 in 6 past year cocaine users, 1 in 20 past year alcohol users, and 1 in 3 past year cigarette smokers reported three or more problems per drug that are considered potential signs of dependence. Based on the estimated number of users of each drug, these rates translate to about 3.3 million marijuana users, 686,000 cocaine users, 10.8 million alcohol users, and 22 million cigarette smokers who experienced three or more problems in the past year related to their use of these drugs. As was noted previously, reports of three or more drug-related problems should not be interpreted as equivalent to a clinical diagnosis of dependence on these drugs, but rather as an indication that individuals may be in need of evaluation or services for their drug use.

More frequent or heavier users of each of these four drugs had notably higher rates of dependence symptoms attributed to their drug use. These results are consistent with previous research, which suggests a positive relationship between the amount of substance use and the number of associated problems. For example, in a survey of members of the Armed Forces (Bray et al., 1999b), heavy drinkers had much higher rates of serious consequences (e.g., drinking-related injury, punishment, or personal problems), productivity loss at work, and dependence symptoms than those who drank less. Greenblatt and Gfroerer (1998a) also found problems associated with drug use to be much more common among frequent users.

Among past year users of marijuana, alcohol, and cocaine, as well as heavy cigarette smokers, those in the younger age groups tended to report higher rates of dependence symptoms than older users. These findings are consistent with those of previous NHSDA surveys (e.g., 1995, 1996, 1997) and may suggest that younger users consider themselves to be less able to "manage" their use in order to reduce associated problems. Alternatively, psychological mechanisms (e.g., denial) may be less established among younger users than among older users, and as a result younger users may be more willing than older users to acknowledge the existence of problems. Neither of these hypotheses can be tested with the NHSDA data, however, because each would require a research design that repeatedly samples these behavioral and attitudinal measures in the same cohort over time in order to determine the pattern of problems across the lifetime.

Table 9.1 **Percentage Reporting Components of Dependence in the Past Year Attributed to Use of Marijuana for the Total Population, Those Who Used at Least Once in the Past Year, and Those Who Used Once a Month or More Often in the Past Year, by Age Group: 1998**

Problems in the Past Year Attributed to Marijuana Use[1]	Age Group in Years				
	12-17	18-25	26-34	35+	Total
A. Total Population[2]					
Wanted or tried to cut down but couldn't	2.4	3.2	0.9	0.3	**1.0**
Built up tolerance	4.0	6.0	1.5	0.5	**1.8**
Spent month or more on drug	4.9	8.0	1.7	0.9	**2.4**
Used drug more than intended	4.1	5.7	1.2	0.5	**1.7**
Reduced important activities	1.7	1.4	0.4	0.2	**0.6**
Caused psychological problems	3.1	4.3	0.9	0.3	**1.2**
Caused health problems	1.7	1.7	0.3	0.3	**0.6**
Any of the above problems	7.8	12.0	3.0	1.3	**3.6**
2 or more of the above problems	5.4	7.7	1.9	0.7	**2.3**
3 or more of the above problems	3.8	5.3	1.1	0.4	**1.5**
B. Used Marijuana at Least Once in the Past Year					
(Unweighted *n*)	(1,035)	(1,665)	(432)	(312)	**(3,444)**
Wanted or tried to cut down but couldn't	16.8	13.2	8.9	8.1	**11.6**
Built up tolerance	28.8	24.8	15.6	13.4	**20.5**
Spent month or more on drug	35.0	33.1	17.9	23.3	**27.8**
Used drug more than intended	29.3	23.5	12.6	13.0	**19.5**
Reduced important activities	11.8	6.0	3.8	6.1	**6.6**
Caused psychological problems	22.2	17.7	9.1	6.3	**13.6**
Caused health problems	11.8	7.3	3.5	6.2	**7.0**
Any of the above problems	55.7	49.9	30.7	32.6	**42.4**
2 or more of the above problems	38.5	32.1	19.4	17.0	**26.5**
3 or more of the above problems	27.4	22.1	10.9	9.9	**17.4**
C. Used Marijuana on 12 or More Days in the Past Year					
(Unweighted *n*)	(542)	(972)	(228)	(192)	**(1,934)**
Wanted or tried to cut down but couldn't	22.0	18.4	15.6	12.0	**16.6**
Built up tolerance	44.7	38.5	28.5	22.7	**33.2**
Spent month or more on drug	53.8	49.2	32.2	32.5	**42.2**
Used drug more than intended	47.5	34.0	22.6	20.0	**30.2**
Reduced important activities	18.7	8.5	6.7	9.6	**10.3**
Caused psychological problems	28.5	21.9	12.9	9.3	**17.8**
Caused health problems	18.1	10.3	3.9	9.7	**10.4**
Any of the above problems	74.1	67.8	49.3	43.8	**58.6**
2 or more of the above problems	57.6	46.6	34.6	26.5	**40.5**
3 or more of the above problems	43.3	33.1	19.4	16.7	**27.7**

Note 1: The definitions of these problems are different in number and kind from those used in the 1994 NHSDA and earlier years. Therefore, data in this table cannot be compared directly with Main Findings data prior to 1995.

Note 2: Questions asked were: In the past 12 months, indicate: (1) If you wanted or tried to stop or cut down on your use of that drug but found that you couldn't. (2) Whether you had built up a tolerance for the drug so that the same amount had less effect than before. (3) Whether you had a period of a month or more when you spent a great deal of time getting or using the drug, or getting over its effects. (4) Whether you have used that kind of drug much more often or in larger amounts than you intended. (5) Whether your use of the drug often kept you from working, going to school, taking care of children, or engaging in recreational activities. (6) Whether your use of the drug caused you to have any emotional or psychological problems–such as feeling uninterested in things, feeling depressed, feeling suspicious of people, feeling paranoid, or having strange ideas. (7) Whether your use of the drug caused you any health problems–such as liver disease, stomach disease, pancreatitis, feet tingling, numbness, memory problems, an accidental overdose, a persistent cough, a seizure or fit, hepatitis, an accidental overdose, or abscesses.

[1] Respondents with missing data on problems were coded as not having problems.

[2] Beginning in 1997, reports of past year drug-related problems were disregarded in the absence of indications of past year use on the marijuana answer sheet. Thus, the 1998 total population estimates are directly comparable to those from 1997 but not 1995 and 1996, which included all reports of drug-related problems in such estimates.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 9.2 **Percentage Reporting Components of Dependence in the Past Year Attributed to Cocaine Use for the Total Population, Those Who Used at Least Once in the Past Year, and Those Who Used Once a Month or More Often in the Past Year, by Age Group: 1998**

Problems in the Past Year Attributed to Cocaine Use[1]	**Age Group in Years**				
	12-17	**18-25**	**26-34**	**35+**	**Total**
A. Total Population[2]					
Wanted or tried to cut down but couldn't	0.3	0.7	0.2	0.2	**0.3**
Built up tolerance	0.3	0.4	0.2	0.1	**0.2**
Spent month or more on drug	0.5	0.6	0.3	0.2	**0.3**
Used drug more than intended	0.4	0.7	0.3	0.2	**0.3**
Reduced important activities	0.3	0.5	0.2	0.3	**0.3**
Caused psychological problems	0.3	0.7	0.3	0.3	**0.3**
Caused health problems	0.2	0.3	0.1	0.1	**0.2**
Any of the above problems	0.8	1.8	0.6	0.4	**0.7**
2 or more of the above problems	0.5	0.9	0.4	0.3	**0.4**
3 or more of the above problems	0.3	0.7	0.3	0.2	**0.3**
B. Used Cocaine at Least Once in the Past Year					
(Unweighted *n*)	(166)	(335)	(119)	(89)	**(709)**
Wanted or tried to cut down but couldn't	18.8	15.4	6.6	*	**16.6**
Built up tolerance	17.5	8.2	6.7	*	**11.2**
Spent month or more on drug	*	13.3	10.2	*	**18.0**
Used drug more than intended	*	14.1	11.1	18.9	**15.5**
Reduced important activities	19.7	11.5	6.5	*	**16.6**
Caused psychological problems	16.6	15.5	10.9	*	**18.8**
Caused health problems	*	6.9	3.5	*	**8.9**
Any of the above problems	*	39.0	20.4	*	**37.8**
2 or more of the above problems	*	20.0	13.4	*	**23.7**
3 or more of the above problems	20.2	14.8	9.3	*	**18.0**
C. Used Cocaine on 12 or More Days in the Past Year					
(Unweighted *n*)	(60)	(112)	(49)	(47)	**(268)**
Wanted or tried to cut down but couldn't	*	12.9	*	*	*
Built up tolerance	*	*	*	*	*
Spent month or more on drug	*	30.1	*	*	**32.1**
Used drug more than intended	*	26.9	*	*	**30.0**
Reduced important activities	*	*	*	*	**34.3**
Caused psychological problems	*	*	*	*	**34.3**
Caused health problems	*	*	*	*	*
Any of the above problems	*	*	*	*	**55.8**
2 or more of the above problems	*	*	*	*	**42.7**
3 or more of the above problems	*	*	*	*	*

Note 1. The definitions of these problems are different in number and kind from those used in the 1994 NHSDA and earlier years. Therefore, data in this table cannot be compared directly with Main Findings data prior to 1995.

Note 2. Questions asked were: In the past 12 months, indicate: (1) If you wanted or tried to stop or cut down on your use of that drug but found that you couldn't. (2) Whether you had built up a tolerance for the drug so that the same amount had less effect than before. (3) Whether you had a period of a month or more when you spent a great deal of time getting or using the drug, or getting over its effects. (4) Whether you have used that kind of drug much more often or in larger amounts than you intended. (5) Whether your use of the drug often kept you from working, going to school, taking care of children, or engaging in recreational activities. (6) Whether your use of the drug caused you to have any emotional or psychological problems–such as feeling uninterested in things, feeling depressed, feeling suspicious of people, feeling paranoid, or having strange ideas. (7) Whether your use of the drug caused you any health problems–such as liver disease, stomach disease, pancreatitis, feet tingling, numbness, memory problems, an accidental overdose, a persistent cough, a seizure or fit, hepatitis, an accidental overdose, or abscesses.

*Low precision; no estimate reported.

[1] Respondents with missing data on problems were coded as not having problems.

[2] Beginning in 1997, reports of past year drug-related problems were disregarded in the absence of indications of past year use on the cocaine answer sheet. Thus, the 1998 total population estimates are directly comparable to those from 1997 but not 1995 and 1996, which included all reports of drug-related problems in such estimates.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 9.3 Percentage Reporting Components of Dependence in the Past Year Attributed to Alcohol Use for the Total Population, Past Year Users, and Those Who Had Five or More Drinks on the Same Occasion on 5 or More of the Past 30 Days, by Age Group: 1998

Problems in the Past Year Attributed to Alcohol Use[1]	Age Group in Years				
	12-17	18-25	26-34	35+	Total
A. Total Population[2]					
Wanted or tried to cut down but couldn't	4.1	7.2	5.0	3.1	**4.1**
Built up tolerance	6.4	18.2	8.7	4.3	**7.0**
Spent month or more on drug	6.7	16.2	9.0	6.6	**8.2**
Used drug more than intended	6.5	15.9	10.2	5.6	**7.7**
Reduced important activities	2.0	5.1	2.5	1.3	**2.0**
Caused psychological problems	3.2	5.7	3.1	1.8	**2.6**
Caused health problems	1.5	2.9	1.5	1.2	**1.5**
Any of the above problems	12.4	29.5	18.5	10.8	**14.6**
2 or more of the above problems	8.0	18.3	9.8	5.7	**8.2**
3 or more of the above problems	4.9	11.7	5.6	3.3	**4.9**
B. Any Alcohol Use in the Past Year					
(Unweighted *n*)	(2,159)	(5,127)	(3,179)	(4,131)	**(14,596)**
Wanted or tried to cut down but couldn't	12.9	9.7	6.8	4.9	**6.4**
Built up tolerance	20.0	24.5	11.7	6.6	**10.9**
Spent month or more on drug	21.2	21.9	12.1	10.2	**12.9**
Used drug more than intended	20.3	21.5	13.7	8.7	**12.1**
Reduced important activities	6.3	6.9	3.4	2.0	**3.2**
Caused psychological problems	10.0	7.7	4.2	2.7	**4.1**
Caused health problems	4.6	3.9	2.0	1.9	**2.3**
Any of the above problems	39.0	39.8	24.8	16.7	**22.8**
2 or more of the above problems	25.1	24.6	13.2	8.9	**12.9**
3 or more of the above problems	15.4	15.7	7.6	5.1	**7.7**
C. Five or More Drinks on Each of 5 or More Occasions in the Past 30 Days					
(Unweighted *n*)	(191)	(736)	(300)	(275)	**(1,502)**
Wanted or tried to cut down but couldn't	31.9	23.0	23.1	25.4	**24.6**
Built up tolerance	47.3	59.6	39.7	31.3	**42.3**
Spent month or more on drug	59.2	55.4	37.5	39.9	**45.1**
Used drug more than intended	54.8	53.9	45.6	38.3	**45.3**
Reduced important activities	18.7	18.3	13.0	11.5	**14.2**
Caused psychological problems	23.9	19.6	18.4	15.2	**17.6**
Caused health problems	11.5	11.1	10.7	10.9	**10.9**
Any of the above problems	76.8	75.0	64.3	60.2	**66.4**
2 or more of the above problems	65.3	63.4	45.7	45.1	**51.8**
3 or more of the above problems	46.8	49.6	33.5	26.9	**36.1**

Note 1: The definitions of these problems are different in number and kind from those used in the 1994 NHSDA and earlier years. Therefore, data in this table cannot be compared directly with Main Findings data prior to 1995.

Note 2: Questions asked were: In the past 12 months, indicate: (1) If you wanted or tried to stop or cut down on your use of that drug but found that you couldn't. (2) Whether you had built up a tolerance for the drug so that the same amount had less effect than before. (3) Whether you had a period of a month or more when you spent a great deal of time getting or using the drug, or getting over its effects. (4) Whether you have used that kind of drug much more often or in larger amounts than you intended. (5) Whether your use of the drug often kept you from working, going to school, taking care of children, or engaging in recreational activities. (6) Whether your use of the drug caused you to have any emotional or psychological problems–such as feeling uninterested in things, feeling depressed, feeling suspicious of people, feeling paranoid, or having strange ideas. (7) Whether your use of the drug caused you any health problems–such as liver disease, stomach disease, pancreatitis, feet tingling, numbness, memory problems, an accidental overdose, a persistent cough, a seizure or fit, hepatitis, an accidental overdose, or abscesses.

[1] Respondents with missing data on problems are coded as not having problems.

[2] Beginning in 1997, reports of past year drug-related problems were disregarded in the absence of indications of past year use on the alcohol answer sheet. Thus, the 1998 total population estimates are directly comparable to those from 1997 but not 1995 and 1996, which included all reports of drug-related problems in such estimates.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 9.4 Percentage Reporting Components of Dependence in the Past Year Attributed to Cigarette Use for the Total Population, Past Year Users, and Those Who Currently Smoke a Pack or More a Day, by Age Group: 1998

Problems in the Past Year Attributed to Cigarette Use[1]	Age Group in Years				
	12-17	18-25	26-34	35+	Total
A. Total Population[2]					
Wanted or tried to cut down but couldn't	8.4	20.7	16.2	11.1	**12.8**
Built up tolerance	7.5	18.1	11.7	6.9	**9.1**
Spent month or more on drug	8.8	22.0	16.1	10.7	**12.8**
Used drug more than intended	7.8	19.5	14.0	9.4	**11.3**
Reduced important activities	2.1	2.9	1.7	1.6	**1.9**
Caused psychological problems	1.2	2.5	1.8	1.3	**1.5**
Caused health problems	3.1	5.9	3.7	3.5	**3.8**
Any of the above problems	13.3	29.8	22.9	15.6	**18.3**
2 or more of the above problems	10.0	24.3	17.9	11.8	**14.2**
3 or more of the above problems	7.3	18.6	13.1	8.3	**10.3**
B. Smoked Cigarettes at Least Once in the Past Year					
(Unweighted *n*)	(1,534)	(3,022)	(1,618)	(2,013)	**(8,187)**
Wanted or tried to cut down but couldn't	35.2	43.8	44.2	41.5	**42.0**
Built up tolerance	31.6	38.5	31.9	25.8	**29.9**
Spent month or more on drug	37.1	46.8	44.1	40.3	**42.0**
Used drug more than intended	32.9	41.5	38.4	35.2	**36.8**
Reduced important activities	8.9	6.2	4.7	6.2	**6.1**
Caused psychological problems	5.2	5.3	4.8	5.0	**5.0**
Caused health problems	13.2	12.5	10.0	13.0	**12.3**
Any of the above problems	56.0	63.3	62.6	58.4	**60.0**
2 or more of the above problems	42.0	51.6	48.9	44.1	**46.3**
3 or more of the above problems	30.9	39.5	35.9	31.2	**33.7**
C. Currently Smoke About a Pack or More Per Day					
(Unweighted *n*)	(79)	(525)	(437)	(815)	**(1,856)**
Wanted or tried to cut down but couldn't	*	62.6	63.4	55.1	**57.7**
Built up tolerance	*	59.3	45.9	35.6	**41.0**
Spent month or more on drug	*	70.2	61.5	53.7	**57.5**
Used drug more than intended	*	65.5	55.9	46.4	**50.8**
Reduced important activities	*	9.0	8.2	7.5	**8.1**
Caused psychological problems	*	8.6	6.5	6.4	**6.8**
Caused health problems	*	20.4	18.8	19.8	**20.0**
Any of the above problems	*	84.5	79.5	75.2	**77.4**
2 or more of the above problems	*	74.6	68.1	59.2	**63.1**
3 or more of the above problems	*	65.3	55.6	43.1	**48.5**

Note 1: The definitions of these problems are different in number and kind from those used in the 1994 NHSDA and earlier years. Therefore, data in this table cannot be compared directly with Main Findings data prior to 1995.

Note 2: Questions asked were: In the past 12 months, indicate: (1) If you wanted or tried to stop or cut down on your use of that drug but found that you couldn't. (2) Whether you had built up a tolerance for the drug so that the same amount had less effect than before. (3) Whether you had a period of a month or more when you spent a great deal of time getting or using the drug, or getting over its effects. (4) Whether you have used that kind of drug much more often or in larger amounts than you intended. (5) Whether your use of the drug often kept you from working, going to school, taking care of children, or engaging in recreational activities. (6) Whether your use of the drug caused you to have any emotional or psychological problems–such as feeling uninterested in things, feeling depressed, feeling suspicious of people, feeling paranoid, or having strange ideas. (7) Whether your use of the drug caused you any health problem–such as liver disease, stomach disease, pancreatitis, feet tingling, numbness, memory problems, an accidental overdose, a persistent cough, a seizure or fit, hepatitis, an accidental overdose, or abscesses.

*Low precision; no estimate reported.

[1] Respondents with missing data on problems are coded as not having problems.

[2] Beginning in 1997, reports of past year drug-related problems were disregarded in the absence of indications of past year use on the tobacco answer sheet. Thus, the 1998 total population estimates are directly comparable to those from 1997 but not 1995 and 1996, which included all reports of drug-related problems in such estimates.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

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Chapter 10: Drug Use Patterns

Introduction

Preceding chapters in this report present findings from the 1998 NHSDA mainly in terms of individual drugs and problems associated with use of those drugs. Presenting information on drugs individually allows the inspection of correlates of use for the various substances, as well as age-related patterns of use. Another important perspective on drug use in America, however, involves patterns of use. Examination of drugs used in combination, age at first use of various drugs, and use of needles (which puts individuals at high risk of contracting the human immunodeficiency virus [HIV]) can reveal a more complete picture of substance use.

A few tables shown earlier in this report (e.g., Tables 3.8, 7.10, 8.7) presented estimates about drugs used in combination with other drugs. These tables show a consistent pattern: use of one type of drug often is associated with use of other drugs. These findings are consistent with the literature on multiple drug use (e.g., Bachman, Wadsworth, O'Malley, Johnston, & Schulenberg, 1997; Everett, Giovino, Warren, Crossett, & Kann, 1998). Individuals may use more than one drug for a variety of reasons, including substituting (or preventing withdrawal) when a primary drug is unavailable, enhancing or altering the effect of a primary drug, or masking its side effects (Stimmel, 1993).

This chapter further examines patterns of multiple drug use (excluding tobacco) among the 1998 NHSDA-surveyed population. It also includes important findings on age at first drug use and rates of needle use. Consistent with previous NHSDA Main Findings and other research (e.g., Chen & Kandel, 1995; Dewit et al., 1997; Kandel et al., 1992; Warren et al., 1997), cigarettes, alcohol, and inhalants tend to be first used at relatively early ages, whereas use of cocaine and heroin usually begins later.[1]

Needle use continues to be an important public health and policy issue. The well-established link between needle use and HIV infection suggests that the continued surveillance of national trends in needle use is essential. Although the NHSDA may underrepresent some subpopulations whose members are most likely to inject drugs (e.g., homeless people), the data provide important information on needle use in the U.S. civilian, noninstitutionalized population aged 12 or older.

Multiple Drug Use (Tables 10.1 to 10.3)

As indicated in Table 10.1, nearly half of the respondents in the 1998 NHSDA reported using only one substance in their lifetime (47%). For almost all of these single-substance users, the substance used was alcohol (98% of the single-substance users). Almost 19% reported using two substances, and 16% reported using three or more substances. Multiple drug use was more common among young adults (aged 18 to 34) than among adolescents or adults aged 35 or older.

Tables 10.2 and 10.3 provide information about drug use patterns for the surveyed population during the past year and past month. Use of alcohol only was the most common pattern of substance use for all age groups for both of these time periods. Rates of use of alcohol only were particularly high among respondents aged 26 or older. The rate of using both alcohol and an illicit drug was highest among respondents aged 18 to 25 for both past year (27%) and past month (15%). The most common combination of drugs used was alcohol and marijuana only, accounting for more than half of those who used two or more drugs in the past year and past month. Overall, about 10% of the total population used two or more substances in the past year and 6% in the past month. Since 1994, the percentage of 12 to 25 year olds reporting using alcohol only in the past month decreased from 15% to 12% among 12 to 17 year olds and from 51% to 45% for those aged 18 to 25 (see OAS, 1996a, Table 10.3).

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[1] See, for example, NIDA (1991) for the 1990 NHSDA; OAS (1993) for the 1991 NHSDA; OAS (1995a) for the 1992 NHSDA; OAS (1995b) for the 1993 NHSDA; OAS (1996a) for the 1994 NHSDA; OAS (1997) for the 1995 NHSDA; OAS (1998a) for the 1996 NHSDA; and OAS (1999a) for the 1997 NHSDA.

Age at First Use (Table 10.4)

Table 10.4 presents data on the average age at first use of cigarettes, alcohol, and other drugs. Consistent with a substantial body of literature (e.g., Kandel & Yamaguchi, 1993; Yamaguchi & Kandel, 1984a, 1984b), the NHSDA-surveyed population initiated cigarette use at a younger average age (15.5 years) than any other drug. Alcohol, inhalant, and marijuana use also began at earlier ages than the use of other drugs, such as hallucinogens, heroin, and cocaine. Among adults aged 18 to 34, cigarette use typically began around age 15; alcohol, marijuana, and inhalants first were used around age 16; and other drugs (e.g., cocaine, hallucinogens, psychotherapeutics, and heroin) first were used between the ages of 17 and 21.

Table 10.4 appears to show much lower average age of drug use initiation for persons aged 12 to 17 than for older age groups. This pattern, however, is at least partially due to the fact that the average age of initiation cannot be greater than the age of the respondents in that group. Consequently, for the 12 to 17 year olds, only relatively young ages of first use (i.e., 17 years or less) are included in the computation of average age of initiation. There might be real differences in the average age of drug use initiation for the birth cohorts presented in Table 10.4, but such differences cannot be readily discerned from data on reported age of first use until all cohorts have passed through early adulthood.

Going back as far as 1965, NHSDA data have been used to estimate the incidence (or number of occurrences) of first time use of selected substances in each year (see Johnson et al., 1996, and OAS, 1999d, for details). These procedures also provide estimates of the average age of first-time users in each year. These estimates indicate that the mean age of first use for most substances has declined over the past 30 years. The mean age of first use of marijuana declined from a high of 20.0 years among those who first used the drug in 1966 to 17.1 among new users in 1997 (OAS, 1999d, Table 41). The mean age of first use was somewhat higher in 1997 than in 1996 (16.6); continued monitoring is needed to determine if age of first use is increasing. The mean age of first use of cocaine generally increased from the early 1970s to the late 1980s, then showed a relatively steady decrease until 1997, when the mean age at first use increased from 19.0 (1996) to 20.3 (1997) (OAS, 1999d, Table 42). As with marijuana, it remains to be seen whether this increase is the beginning of an upward trend in age at first use of cocaine. The mean age of first use of alcohol declined from around 18 among new alcohol users in the late 1960s to 16.1 among new users in 1996 (the last available year of data) (OAS, 1999d, Table 46). In contrast, the mean age of first use of cigarettes remained fairly stable between 15 and 16 years of age from the early 1960s to 1996 (OAS, 1999d, Table 47).

Needle Use (Table 10.5)

Approximately 1.3% of the respondents in the 1998 NHSDA reported drug use with needles in their lifetime. As indicated in Table 10.5, persons aged 18 or older were two to four times more likely than youths aged 12 to 17 to have used an illicit drug with a needle. Youths aged 12 to 17 were less likely than any other age group to have injected drugs, but there were no significant differences among the adult age groups.

Some gender differences were found in lifetime injection drug use. In the total population and among 18 to 25 year olds and those 35 or older, needle use was significantly more common among males than females. Among 12 to 17 year olds and 26 to 34 year olds, there were no gender differences in the rates of needle use. Lifetime needle use was not related to race/ethnicity, population density, region, or education for the total population or any age group. Few differences in needle use by current employment were found: For the total population, needle use was higher among full-time than part-time workers and higher among the unemployed than part-time workers.

Discussion

Almost half of the respondents had used only one substance in their lifetime, and for 98% of these single-substance users (47% of the total population), that substance was alcohol. An additional 35% reported using alcohol in combination with at least one illicit drug in their lifetime, and 1.0% had used illicit drugs but had not used alcohol. In the past month, 46% of the total population had used only alcohol, 5% had used alcohol and another substance, and 0.8% had used only illicit drugs. The most common pattern of use of alcohol and illicit drugs was the use of alcohol and marijuana.

For each time frame, rates of use of alcohol only were higher among adults age groups than among youths aged 12 to 17. For illicit drug use only, however, rates were highest among 12 to 17 year olds. Use of both alcohol and illicit drugs in the past year and past month was highest among young adults aged 18 to 25.

As in previous NHSDA surveys, estimated average ages of drug use initiation were lower for cigarettes, alcohol, inhalants, and marijuana than for hallucinogens, cocaine, heroin, and nonmedical use of psychotherapeutic drugs. Finally, lifetime rates of needle use were relatively low. Needle use was more common among males than females, and among adults aged 18 or older compared to 12 to 17 year olds. No significant relationships were found between needle use and race/ethnicity or population density, and few differences were found by region, level of educational attainment, and current employment status.

Table 10.1 Percentage Reporting Types of Drug Use in Their Lifetime, by Age Group: 1998

Types of Use	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Alcohol Only	20.0	36.4	38.5	55.2	**46.5**
Illicit Drugs[1] Only	4.0	1.3	0.9	0.4	**1.0**
Marijuana only	1.3	0.7	0.5	0.2	**0.4**
Psychotherapeutics[2] only	1.2	0.3	0.2	0.1	**0.3**
Other drugs and drug combinations	1.5	0.3	0.2	0.1	**0.3**
Alcohol and Illicit Drugs	17.3	46.8	49.7	31.4	**34.8**
Alcohol and marijuana only	8.0	21.0	22.9	15.2	**16.4**
Alcohol and psychotherapeutics only	0.5	1.5	1.5	1.5	**1.4**
Alcohol and other drugs and drug combinations	8.8	24.3	25.3	14.7	**17.0**
Used Only 1 Substance[3]	23.6	37.5	39.2	55.6	**47.3**
Used 2 Substances	9.8	23.9	25.3	17.2	**18.6**
Used 3 or More Substances	8.0	23.1	24.6	14.2	**16.3**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

[1] Use of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP] and lysergic acid diethylamide [LSD]), heroin, or nonmedical use of psychotherapeutics at least once.

[2] Nonmedical use of any prescription-type stimulant, sedative, tranquilizer, or analgesic; does not include over-the-counter drugs.

[3] A "substance" is defined as any one of the following types of drugs: alcohol, marijuana, hallucinogens, cocaine, heroin, inhalants, and nonmedical use of prescription-type psychotherapeutics.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 10.2 Percentage Reporting Types of Drug Use in the Past Year, by Age Group: 1998

	Age Group in Years				
Types of Use	**12-17**	**18-25**	**26-34**	**35+**	**Total**
Alcohol Only	18.0	47.7	63.0	59.6	**54.3**
Illicit Drugs[1] Only	2.6	0.9	1.1	0.5	**0.9**
Marijuana only	1.2	0.5	0.5	0.2	**0.4**
Psychotherapeutics[2] only	0.5	0.2	0.3	0.2	**0.3**
Other drugs and drug combinations	0.8	0.2	0.2	0.1	**0.2**
Alcohol and Illicit Drugs	13.8	26.5	11.6	5.0	**9.7**
Alcohol and marijuana only	7.7	13.4	6.0	2.9	**5.2**
Alcohol and psychotherapeutics only	0.3	1.5	1.4	0.7	**0.9**
Alcohol and other drugs and drug combinations	5.8	11.6	4.1	1.4	**3.6**
Used Only 1 Substance[3]	20.3	48.5	64.1	60.1	**55.1**
Used 2 Substances	8.8	16.1	8.3	4.0	**6.8**
Used 3 or More Substances	5.3	10.5	3.3	1.0	**3.0**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

[1] Use of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP] and lysergic acid diethylamide [LSD]), heroin, or nonmedical use of psychotherapeutics at least once.

[2] Nonmedical use of any prescription-type stimulant, sedative, tranquilizer, or analgesic; does not include over-the-counter drugs.

[3] A "substance" is defined as any one of the following types of drugs: alcohol, marijuana, hallucinogens, cocaine, heroin, inhalants, and nonmedical use of prescription-type psychotherapeutics.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

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Table 10.3 Percentage Reporting Types of Drug Use in the Past Month, by Age Group: 1998

Types of Use	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Alcohol Only	11.5	45.0	54.8	50.2	**46.2**
Illicit Drugs[1] Only	2.3	1.1	0.9	0.5	**0.8**
Marijuana only	1.1	0.6	0.6	0.3	**0.5**
Psychotherapeutics[2] only	0.5	0.2	0.3	0.2	**0.2**
Other drugs and drug combinations	0.7	0.3	0.1	*	**0.1**
Alcohol and Illicit Drugs	7.6	15.1	6.1	2.8	**5.4**
Alcohol and marijuana only	4.8	9.0	3.6	1.8	**3.3**
Alcohol and psychotherapeutics only	0.2	0.9	0.6	0.3	**0.4**
Alcohol and other drugs and drug combinations	2.6	5.1	1.9	0.7	**1.7**
Used Only 1 Substance[3]	13.4	45.8	55.7	50.7	**47.0**
Used 2 Substances	5.8	11.0	4.8	2.4	**4.2**
Used 3 or More Substances	2.2	4.2	1.3	0.5	**1.3**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

*Low precision; no estimate reported.

[1] Use of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP] and lysergic acid diethylamide [LSD]), heroin, or nonmedical use of psychotherapeutics at least once.

[2] Nonmedical use of any prescription-type stimulant, sedative, tranquilizer, or analgesic; does not include over-the-counter drugs.

[3] A "substance" is defined as any one of the following types of drugs: alcohol, marijuana, hallucinogens, cocaine, heroin, inhalants, and nonmedical use of prescription-type psychotherapeutics.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

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Table 10.4 **Average Age at First Use of Cigarettes, Alcohol, and Other Drugs, by Age Group: 1998**

	Age Group in Years				Total	
Drug	**12-17**	**18-25**	**26-34**	**35+**	**All Ages**	**(Unweighted *n*)**
Cigarettes	12.4	14.9	15.0	16.1	15.5	(14,881)
Alcohol	13.1	15.8	16.3	18.3	17.4	(17,692)
Marijuana/Hashish	13.7	16.4	16.5	19.9	18.2	(8,183)
Inhalants	12.5	16.2	16.5	20.2	17.5	(1,511)
Cocaine	14.6	17.9	19.4	23.8	21.7	(2,391)
Hallucinogens	14.4	17.3	18.1	20.0	18.7	(2,369)
Heroin	14.0	18.3	21.3	23.6	22.3	(254)
Nonmedical Use of Any Psychotherapeutic Drugs	13.7	17.4	19.1	22.9	20.8	(1,826)
Stimulants	14.1	17.4	18.3	20.0	19.2	(801)
Sedatives	13.5	16.6	17.9	21.5	20.5	(303)
Tranquilizers	14.4	18.2	20.7	24.8	22.4	(620)
Analgesics	13.8	17.4	20.0	25.5	21.8	(1,140)

Note 1: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

Note 2: Entries are the average (mean) ages of first use of the drugs among those who have used the drug.

Note 3: The mean age should not be used to compare birth cohorts (i.e., groups of individuals born in different historical periods, such as age groups 12 to 17, 18 to 25, and others in this table) because data on the distribution of initiation ages are censored (i.e., unavailable beyond a specified age) for recent cohorts, and the age of censoring depends on the cohort. Thus, comparisons of the mean age across cohorts are biased.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

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Table 10.5 Percentage Reporting Drug Use with a Needle in Their Lifetime, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				
	12-17	18-25	26-34	35+	Total
Total	**0.3**	**1.1**	**1.1**	**1.5**	**1.3**
Gender					
Male	0.5	1.7	1.2	2.0	**1.7**
Female	0.2	0.4	1.1	1.1	**0.9**
Race/Ethnicity[1]					
White, non-Hispanic	0.4	1.3	1.2	1.5	**1.3**
Black, non-Hispanic	0.1	0.5	1.0	2.3	**1.5**
Hispanic	0.3	0.9	0.8	1.0	**0.9**
Population Density					
Large metro	0.3	1.2	1.2	1.6	**1.3**
Small metro	0.4	1.0	1.2	1.3	**1.1**
Nonmetro	0.4	1.0	0.9	1.7	**1.4**
Region					
Northeast	0.2	0.9	*	1.5	**1.1**
North Central	0.4	1.0	1.0	1.2	**1.0**
South	0.2	1.0	1.9	1.4	**1.3**
West	0.5	1.3	1.0	2.2	**1.7**
Adult Education[2]					
Less than high school	N/A	1.3	2.8	1.5	**1.6**
High school graduate	N/A	0.9	1.6	1.4	**1.3**
Some college	N/A	1.5	0.6	2.4	**1.9**
College graduate	N/A	*	*	1.0	**0.8**
Current Employment[3]					
Full-time	N/A	1.3	1.1	1.9	**1.6**
Part-time	N/A	0.5	0.3	1.2	**0.9**
Unemployed	N/A	1.1	2.8	6.2	**4.1**
Other[4]	N/A	1.2	1.1	0.8	**0.8**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

*Low precision; no estimate reported.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Chapter 11: Risk of Using Drugs, Ease of Getting Drugs, and Risky Behaviors

Introduction

Since 1996, the NHSDA has included questions on respondents' perceptions of the risk of using various drugs, their perceptions of the ease of obtaining such drugs, and other topics related to obtaining and using drugs (i.e., reports of having been approached by someone offering to sell drugs, driving while under the influence of drugs or alcohol, and riding without a seat belt). The relationships between substance use and the above topics are examined in this chapter. Previous studies of adolescent and adult populations repeatedly showed that perceptions of risk from using substances and perceptions of the ease of obtaining substances are highly correlated with substance use (Bachman, Johnson, & O'Malley, 1998; Fromme, Katz, D'Amico, 1997; Harrison & Pottieger, 1996; OAS, 1994; Resnicow, Smith, Harrison, & Drucker, 1999; Yarnold, 1998), as is driving without a seatbelt (Goldbaum, Remington, Powell, Hogelin, & Gentry, 1996; Maron et al., 1986; Oleckno & Blacconiere, 1990).

It should be noted, however, that analyses conducted in this chapter are based on cross-sectional tests of association; therefore, causal linkages cannot be established and should not be inferred. For example, it cannot be determined whether perceptions of few risks from substance use caused respondents to use substances, or whether their use of substances influenced their reported perception of the risks of use.

Perceptions of Risk of Using Illicit Drugs, Alcohol, and Cigarettes (Tables 11.1 and 11.2)

Table 11.1 presents respondents' perceptions of how much people risk harming themselves by using marijuana, cocaine, heroin, alcohol, and cigarettes in various frequencies and quantities. A majority of respondents perceived great risk for people who smoked marijuana regularly (once or twice a week: 58%), used cocaine at least once a month (76%), tried heroin once or twice (79%), had four or five alcoholic drinks nearly every day (76%), had five or more drinks once or twice a week (54%), or smoked one or more packs of cigarettes a day (68%). Only about 42%, however, perceived occasional marijuana use (once a month) as putting one at great risk. More than 90% considered use of cocaine or heroin once or twice a week to be very risky.

In all of the adult age categories, the percentage reporting great risk from using marijuana, cocaine, heroin, alcohol, or cigarettes increased steadily with age. For example, although only about 44% of 18 to 25 year olds saw regular marijuana smoking as a great risk, approximately 52% of adults aged 26 to 34 and 63% of adults age 35 or older saw this type of drug use as a great risk. Approximately 54% of adolescents perceived great risk of harm from regular marijuana use, 31% perceived great risk from occasional marijuana use, and 47% perceived great risk from drinking five or more drinks of alcohol once or twice a week. For every other drug use behavior, however, youths aged 12 to 17 were less likely than any other age group to report perceptions of great risk. This difference was especially noteworthy for risks regarding trying heroin once or twice, which was perceived to be a great risk by only 53% of youths compared to more than 70% of those aged 18 or older.

Table 11.1 also shows that there were few differences in perceptions of great risk between the 1997 and 1998 NHSDAs. Specifically, those aged 18 to 25 were less likely to report perceptions of great risk from smoking marijuana once a month in 1998 than in 1997 (26% vs. 29%), and those aged 26 to 34 were less likely to perceive great risk from using cocaine once a month (72% in 1998 vs. 76% in 1997) and from trying heroin once or twice (77% in 1998 vs. 80% in 1997).

In Table 11.2, the prevalences of perceptions of great risk resulting from use of different drugs are presented by whether respondents had used any illicit drugs in the past year. Generally, respondents who had used any illicit drug in the past year were less likely than those who had not used illicit drugs to report perceiving great risk from use of the various drugs. For example, only 18% of those who had used any illicit drug in the past year perceived great risk from smoking marijuana once or twice a week compared with approximately 63% of those who had not used any illicit drug in the past year. The only exceptions to this general pattern were among adolescents where youths who had or had not used any illicit drug in the past year were about equally likely to perceive great risk from using cocaine once or twice a week and where youths who had used an illicit drug in the past year were more likely than those who had not to perceive great risk from trying heroin once or twice.

Perceptions of Ease or Difficulty of Getting Illicit Drugs (Tables 11.3 and 11.4)

Table 11.3 presents the percentages of respondents who reported that they thought drugs were fairly easy or very easy to get, if one wanted to get such drugs. Generally, nearly two times as many respondents perceived that it would be easy to obtain marijuana compared with "crack," lysergic acid diethylamide (LSD), and heroin. Although heroin was the substance reported by the smallest percentage of respondents as easy or fairly easy to obtain, the percentage was substantial (28%). Even among adolescents, 21% perceived that heroin would be easy to obtain.

Table 11.3 also shows that there were several differences in perceptions of ease of obtaining substances between the 1997 and 1998 NHSDAs, particularly among the two oldest age groups. Overall and among adults aged 26 to 34, fewer respondents in 1998 than in 1997 perceived that cocaine would be easy or fairly easy to obtain (41% in 1997 vs. 38% in 1998 for the total population, and 46% in 1997 vs. 42% in 1998 for 26 to 34 year olds). Additionally, in the total population and the two oldest age groups, crack cocaine and LSD were significantly less likely to have been perceived as easy to obtain in 1998 compared to 1997. Similarly, heroin was less likely to have been perceived as easy to obtain among the total population and the 35 or older age group in 1998 compared to 1997.

In Table 11.4, the percentages who reported that they thought getting each drug would be fairly or very easy are presented by whether respondents reported any illicit drug use in the past year. Generally, respondents who had used any illicit drug in the past year were more likely than those who had not used any illicit drug to perceive that it would be easy or fairly easy to obtain various drugs. For example, approximately 88% of those who had used any illicit drug in the past year perceived that it would be easy or fairly easy to get marijuana compared with 55% of those who had not used any illicit drug in the past year. The exceptions to this general pattern were the perceived ease of obtaining heroin among all age groups and the perceived ease of obtaining LSD among adults aged 26 or older. In each of these comparisons, those who had used or had not used illicit drugs in the past year were equally likely to perceive that these substances would be easy or fairly easy to obtain.

Respondents' Reports of Having Been Approached by Someone Selling Drugs (Table 11.5)

Table 11.5 shows the percentage of respondents who reported that they had been approached by someone selling illicit drugs in the past month. Overall, nearly 6% of the total population aged 12 or older said they had been approached. Young adults aged 18 to 25 (17%) were the most likely to report having been approached by an illicit drug seller, followed by adolescents (13%), adults aged 26 or older (6%), and older adults (2%). Overall and among each age group, males were more likely than females to report having been approached by someone selling illicit drugs.

Overall and for the two older age groups, blacks and Hispanics were more likely than whites to report having been approached by someone selling illicit drugs.[1] Among 12 to 17 year olds, white and Hispanic youths were more likely than black youths to report having been approached by an illicit drug seller.

Overall and for the youngest age group, respondents living in large and small metropolitan areas were more likely than those in nonmetropolitan areas to report having been approached by someone who was selling illicit drugs. No differences among regions were found.

Adult education and current employment were factors associated with whether one had been approached by someone selling illicit drugs. Overall and among young adults and those aged 26 to 34, those with less than a high school education were significantly more likely than respondents in each of the other educational categories to report such contact. Overall and among those aged 26 to 34, unemployed adults were more likely than those in the other employment categories to report having been approached by someone selling illicit drugs. Among those aged 18 to 25, unemployed adults were more likely than those employed part-time to have been approached by someone selling drugs.

Heavy Alcohol and Illicit Drug Use and Risky Driving Behaviors (Table 11.6)

Table 11.6 presents the associations between heavy alcohol and illicit drug use and high-risk driving behaviors that might result in harm to one's self or others. Two kinds of high-risk driving behaviors are shown. The first is driving under the influence of either a drug or alcohol during the past year. The second is often driving or riding without wearing a seat belt. Only persons aged 16 or older are included in Table 11.6 because younger persons are not legally able to drive in most States.

Past year illicit drug users were over three times as likely as the total population aged 16 or older to report having driven under the influence (38% vs. 11%), and past month heavy alcohol users were nearly five times as likely as the total population to have done so (50% vs. 12%). Males who used an illicit drug in the past year were three times as likely as the total population of males to have driven under the influence (43% vs. 16%, respectively), while females who used an illicit drug were nearly five times as likely as all females (31% vs. 7%, respectively). Among past year illicit drug users aged 16 or older, those most likely to have driven under the influence in the past year were males, those aged 18 to 25, whites, those living in small metropolitan areas, those with some college or more, and those who were employed full- or part-time.

Males aged 16 or older who reported past month heavy alcohol use were around three times as likely as the total population to report driving under the influence in the past year (49% vs. 16%, respectively). Among past month heavy alcohol users, females were more likely to report driving under the influence than males (53% vs. 49%, respectively). Among past month heavy alcohol users, over half of those aged 18 to 34, whites, those living in small metropolitan and nonmetropolitan areas, those living in the North Central and West regions, those with some college and college graduates, and those employed full- or part-time reported driving under the influence in the past year. Among heavy alcohol users, those most likely to report driving under the influence in the past year were those aged 18 to 25, those with some college, and those employed part-time (61% to 72%).

Past year illicit drug users and past month heavy alcohol users were twice as likely as the total population to report riding without a seat belt. Among past year illicit drug users, those most likely to report riding without a seat belt were males (25%), those 20 years old or younger (24% to 25%), those living in nonmetropolitan areas (31%), those with a high school education or less (27% to 28%), and those who were unemployed (36%).

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[1] In the interest of readability for this report, "white" is used to indicate "white, non-Hispanic" and "black" to indicate "black, non-Hispanic."

Males aged 16 or older who reported heavy alcohol use in the past month were more likely than the total population of males to have ridden without a seat belt (25% vs. 15%, respectively); females who reported heavy alcohol use also were more likely than the total population of females to report having ridden without a seat belt (20% vs. 8%, respectively). Among past month heavy alcohol users, those most likely to report riding without a seat belt were those 20 years old or younger (approximately 30%), blacks (29%), those living in nonmetropolitan areas (33%), those living in the Northeast (32%) and North Central regions (28%), and those with a high school diploma (36%).

Discussion

Most people perceived that one takes great risks of harming oneself with any use of cocaine or heroin and with heavy alcohol use nearly every day. About two-thirds of the population assigned great risk to smoking a pack of cigarettes every day. Over half considered regular marijuana use and weekly heavy drinking to entail great risk, although only two in five persons perceived that great risk may be associated with occasional marijuana use. More than 90% perceived use of cocaine or heroin once or twice a week to be very risky. The prevalences of perceptions that great risks may be incurred with drug use were generally lowest among youths aged 12 to 17 and lower among persons who had used any illicit drug in the past year. In general, strong associations were found between substance use and perceived risk of substance use, with respondents who used substances being less likely to perceive great risk from use.

Clear majorities of the total population and all age groups reported that marijuana is fairly easy or very easy to obtain. Around 40% of the adult population thought that cocaine and crack might be easily obtained, while around 30% of adolescents thought these substances could be easily obtained. About a third of all adults aged 18 or older considered it fairly or very easy to get heroin; only about one of five youths believed heroin could be obtained this easily. In general, there were also strong associations between drug use and perceived ease of obtaining drugs, with respondents who used drugs being more likely to perceive that it is easy to obtain them.

About 6% of the population aged 12 or older reported being approached during the past month by someone offering to sell an illicit drug. Such contact initiated by a drug seller was more prevalent among those aged 12 to 25 than among older age groups. Among adolescents and young adults, being approached by a drug seller was generally more common among males, whites and Hispanics, and those residing in large and small metropolitan areas.

Finally, past year illicit drug use and heavy alcohol use were highly related to high-risk driving behaviors. In particular, driving while under the influence during the past year was reported by half of the heavy drinkers and by about 40% of past year illicit drug users. The co-occurrence of the use of illicit drugs or heavy amounts of alcohol with driving under the influence and other risky behaviors provides support for the view that substance use is one of several behaviors that make up a syndrome of problem behaviors (Donovan, Jessor, & Costa, 1999; Hawkins, Arthur, & Catalano, 1997; Hawkins, Catalano, & Miller, 1992; Kandel, Simcha-Fagan, & Davies, 1986; Newcomb & Felix-Ortiz, 1992) and that this pattern occurs among adults as well as adolescents.

Table 11.1 Trends in Percentage Reporting Perceptions of Great Risk of Using Illicit Drugs, Alcohol, or Cigarettes, by Age Group: 1997 and 1998

	Age Group in Years/Survey Year									
	12-17		18-25		26-34		35+		Total	
Risk Behavior (Unweighted *n*)	**1997 (7,844)**	**1998 (6,778)**	**1997 (6,239)**	**1998 (7,318)**	**1997 (4,387)**	**1998 (4,537)**	**1997 (6,035)**	**1998 (6,867)**	**1997 (24,505)**	**1998 (25,500)**
Marijuana										
Smoke once a month	30.9	30.8	28.8[a]	26.3	35.3	32.8	51.0	49.4	43.4	41.8
(Unweighted *n*)	(7,784)	(6,734)	(6,187)	(7,268)	(4,338)	(4,497)	(5,940)	(6,758)	(24,249)	(25,257)
Smoke once or twice a week	54.0	54.4	46.1	43.9	52.8	51.5	64.1	63.2	58.8	57.9
(Unweighted *n*)	(7,724)	(6,647)	(6,132)	(7,213)	(4,301)	(4,455)	(5,871)	(6,666)	(24,028)	(24,981)
Cocaine										
Use once a month	54.4	54.3	70.6	69.0	76.1[a]	72.4	84.0	82.8	77.9[a]	76.4
(Unweighted *n*)	(7,787)	(6,730)	(6,193)	(7,274)	(4,344)	(4,497)	(5,951)	(6,774)	(24,275)	(25,275)
Use once or twice a week	82.4	81.6	90.8	89.6	92.9	91.7	94.9	94.1	92.8[a]	91.8
(Unweighted *n*)	(7,760)	(6,708)	(6,162)	(7,250)	(4,330)	(4,467)	(5,922)	(6,730)	(24,174)	(25,155)
Heroin										
Try once or twice	53.5	52.8	72.5	72.0	80.0[a]	76.9	87.7	86.2	80.9	79.4
(Unweighted *n*)	(7,778)	(6,731)	(6,184)	(7,272)	(4,346)	(4,497)	(5,947)	(6,776)	(24,255)	(25,276)
Use once or twice a week	82.2	81.7	92.8	92.4	95.6	94.5	96.5	96.5	94.4	94.1
(Unweighted *n*)	(7,749)	(6,689)	(6,157)	(7,245)	(4,326)	(4,471)	(5,916)	(6,730)	(24,148)	(25,135)
Alcohol										
Four or five drinks nearly every day	65.3	66.4	68.4	67.9	76.3	74.7	80.2	79.5	76.5	75.9
(Unweighted *n*)	(7,785)	(6,737)	(6,196)	(7,282)	(4,344)	(4,496)	(5,965)	(6,794)	(24,290)	(25,309)
Five or more drinks once or twice a week	46.5	47.0	42.7	41.8	47.8	48.2	60.6	59.6	54.8	54.2
(Unweighted *n*)	(7,789)	(6,727)	(6,177)	(7,278)	(4,342)	(4,489)	(5,949)	(6,762)	(24,257)	(25,256)
Cigarettes										
Smoke one or more packs per day	53.6	54.1	61.3	59.9	68.3	67.0	70.9	72.2	67.4	67.9
(Unweighted *n*)	(7,818)	(6,755)	(6,215)	(7,298)	(4,358)	(4,519)	(5,997)	(6,823)	(24,388)	(25,395)

Note 1: Questions asked were: How do you think people risk harming themselves physically and in other ways when they do each of the following activities? Response choices were for each of 11 activities: (1) no risk, (2) slight risk, (3) moderate risk, and (4) great risk. The unweighted *n*'s for each age group are smaller than those shown in Table 1.1 because of differing patterns of nonresponse to the risk questions across age groups.

Note 2: Due to improved procedures, these estimates are not comparable with previous year estimates and should not be used for trends with pre-1994 data.

-- Not available.

[a] Difference between 1997 estimate and 1998 estimate is statistically significant at the .05 level.

[b] Difference between 1997 estimate and 1998 estimate is statistically significant at the .01 level.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1997 and 1998.

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Table 11.2 Percentage Reporting Perceptions of Great Risk of Using Illicit Drugs, by Use of Any Illicit Drug in the Past Year and Age Group: 1998

Age Group in Years/Percentage Reporting Great Risk of Using Drugs	Any Illicit Drug Use in Past Year No	Any Illicit Drug Use in Past Year Yes	Total
Total			
Smoke marijuana once or twice a week	62.7	18.1	**57.9**
Use cocaine once or twice a week	*93.0*	*82.2*	***91.8***
Try LSD once or twice	74.5	43.1	**71.1**
Try heroin once or twice	80.8	68.3	**79.4**
12-17 Years			
Smoke marijuana once or twice a week	61.5	18.0	**54.4**
Use cocaine once or twice a week	81.9	79.7	**81.6**
Try LSD once or twice	49.9	36.5	**47.7**
Try heroin once or twice	51.5	59.2	**52.8**
18-25 Years			
Smoke marijuana once or twice a week	55.0	14.7	**43.9**
Use cocaine once or twice a week	91.8	83.8	**89.6**
Try LSD once or twice	63.2	36.9	**56.0**
Try heroin once or twice	73.2	69.0	**72.0**
26-34 Years			
Smoke marijuana once or twice a week	56.1	20.3	**51.5**
Use cocaine once or twice a week	92.9	83.4	**91.7**
Try LSD once or twice	70.2	47.4	**67.3**
Try heroin once or twice	77.9	70.3	**76.9**
35+ Years			
Smoke marijuana once or twice a week	65.7	20.6	**63.2**
Use cocaine once or twice a week	94.8	81.2	**94.1**
Try LSD once or twice	81.1	50.5	**79.4**
Try heroin once or twice	87.1	70.9	**86.2**

Note 1: Questions asked were: How much do you think people risk harming themselves physically and in other ways when they do each of the following activities? Response choices were for each of 11 activities: (1) no risk, (2) slight risk, (3) moderate risk, and (4) great risk.

Note 2: The unweighted *n*'s for each age group are smaller than those shown in Table 1.1 because of differing patterns of nonresponse to the risk questions across age groups.

Note 3: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

LSD=lysergic acid diethylamide.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 11.3 Trends in Percentage of Respondents Reporting Illicit Drugs Are Fairly Easy to Get or Very Easy to Get, by Age Group: 1997 and 1998

	Age Group in Years/Survey Year									
	12-17		18-25		26-34		35+		Total 12+ Years	
Drug (Unweighted *n*)	1997 (7,844)	1998 (6,778)	1997 (6,239)	1998 (7,318)	1997 (4,387)	1998 (4,537)	1997 (6,035)	1998 (6,867)	1997 (24,505)	1998 (25,500)
Marijuana										
(fairly or very easy to get)	57.9	56.3	77.0	77.1	68.4	66.9	54.5	52.2	60.1	58.2
(Unweighted *n*)	(7,782)	(6,714)	(6,186)	(7,259)	(4,336)	(4,472)	(5,880)	(6,708)	(24,184)	(25,153)
Cocaine										
(fairly or very easy to get)	30.4	29.9	44.1	44.2	46.3[b]	41.6	39.9	37.6	40.5[a]	38.3
(Unweighted *n*)	(7,765)	(6,697)	(6,166)	(7,237)	(4,322)	(4,471)	(5,859)	(6,679)	(24,112)	(25,084)
"Crack"										
(fairly or very easy to get)	28.9	28.7	41.1	38.8	43.0[b]	38.3	39.0[a]	35.7	38.8[b]	35.8
(Unweighted *n*)	(7,770)	(6,699)	(6,167)	(7,246)	(4,321)	(4,470)	(5,859)	(6,682)	(24,117)	(25,097)
LSD										
(fairly or very easy to get)	28.0	26.1	39.4	39.7	31.5[a]	28.6	32.8[a]	29.6	32.9[b]	30.4
(Unweighted *n*)	(7,744)	(6,690)	(6,156)	(7,225)	(4,311)	(4,457)	(5,844)	(6,670)	(24,055)	(25,042)
Heroin										
(fairly or very easy to get)	21.4	21.2	30.7	28.3	30.6	28.4	32.7[a]	29.6	30.9[b]	28.3
(Unweighted *n*)	(7,771)	(6,703)	(6,165)	(7,242)	(4,315)	(4,468)	(5,855)	(6,678)	(24,106)	(25,091)

Note 1 Questions asked were How difficult do you think it would be for you to get each of the following types of drugs, if you wanted some? Response choices were for each of five drugs (1) probably impossible, (2) very difficult, (3) fairly difficult, (4) fairly easy, and (5) very easy.

LSD=lysergic acid diethylamide

[a] Difference between 1997 estimate and 1998 estimate is statistically significant at the .05 level.
[b] Difference between 1997 estimate and 1998 estimate is statistically significant at the .01 level.

Source Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1997 and 1998

Table 11.4 Percentage Reporting That Illicit Drugs Are Fairly or Very Easy to Obtain, by Use of Any Illicit Drug in the Past Year and Age Group: 1998

Age Group in Years/Percentage Saying Drug Is Easy or Fairly Easy to Obtain	Any Illicit Drug Use in Past Year		
	No	Yes	Total
Total			
Marijuana	54.6	88.2	**58.2**
LSD	29.3	39.4	**30.4**
Cocaine	36.6	52.8	**38.3**
"Crack"	34.8	43.7	**35.8**
Heroin	28.2	29.7	**28.3**
12-17 Years			
Marijuana	50.1	87.8	**56.3**
LSD	21.8	47.7	**26.1**
Cocaine	27.4	42.8	**29.9**
"Crack"	27.3	35.9	**28.7**
Heroin	20.7	23.9	**21.2**
18-25 Years			
Marijuana	70.8	93.7	**77.1**
LSD	36.2	48.9	**39.7**
Cocaine	39.9	55.5	**44.2**
"Crack"	37.3	42.6	**38.8**
Heroin	28.4	28.3	**28.3**
26-34 Years			
Marijuana	63.7	88.4	**66.9**
LSD	28.0	33.0	**28.6**
Cocaine	39.3	56.9	**41.6**
"Crack"	36.8	48.7	**38.3**
Heroin	28.1	30.5	**28.4**
35+ Years			
Marijuana	50.4	82.5	**52.2**
LSD	29.6	29.0	**29.6**
Cocaine	36.7	52.6	**37.6**
"Crack"	35.1	45.9	**35.7**
Heroin	29.3	33.8	**29.6**

Note 1: Questions asked were: How difficult do you think it would be for you to get each of the following types of drugs, if you wanted some? Response choices were for each of five drugs: (1) probably impossible, (2) very difficult, (3) fairly difficult, (4) fairly easy, and (5) very easy.

Note 2: The unweighted *n*'s for each age group are smaller than those shown in Table 1.1 because of differing patterns of nonresponse to the risk questions across age groups.

Note 3: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

LSD=lysergic acid diethylamide.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 11.5 Percentages Reporting Being Approached in the Past Month by Someone Offering to Sell Drugs, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**13.4**	**16.5**	**6.1**	**2.4**	**6.0**
Gender					
Male	14.9	22.6	8.2	3.4	**8.0**
Female	11.9	10.3	4.0	1.5	**4.0**
Race/Ethnicity[1]					
White, non-Hispanic	14.1	17.4	5.2	1.6	**5.2**
Black, non-Hispanic	9.6	15.0	10.7	6.7	**9.1**
Hispanic	15.5	16.6	7.9	4.8	**9.0**
Population Density					
Large metro	14.6	16.0	6.7	3.0	**6.4**
Small metro	14.2	18.2	6.2	2.0	**6.3**
Nonmetro	10.1	14.3	4.5	1.9	**4.6**
Region					
Northeast	13.3	16.9	4.4	2.1	**5.3**
North Central	13.0	17.7	7.2	1.7	**5.8**
South	13.2	16.1	6.5	3.0	**6.3**
West	14.3	15.6	5.8	2.6	**6.2**
Adult Education[2]					
Less than high school	N/A	22.2	13.5	2.6	**7.2**
High school graduate	N/A	16.1	7.5	2.7	**5.6**
Some college	N/A	16.2	3.1	2.2	**5.2**
College graduate	N/A	8.2	4.2	2.1	**2.9**
Current Employment[3]					
Full-time	N/A	16.9	6.1	3.2	**5.7**
Part-time	N/A	15.7	6.9	2.2	**6.5**
Unemployed	N/A	21.4	13.4	6.2	**11.9**
Other[4]	N/A	15.0	3.3	1.1	**2.8**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 11.6 **Percentage of Those Aged 16 or Older Reporting Driving Under the Influence of Alcohol or Illicit Drugs in the Past Year or Often Driving or Riding in a Car Without Wearing a Seat Belt, by Past Year Illicit Drug Use, Heavy Alcohol Use, and Demographic Characteristics: 1998**

Demographic Characteristic	Illicit Drug Use in the Past Year		Heavy Alcohol Use in the Past Month		Total	
	Drove Under the Influence in the Past Year	Often Drove or Rode Without Wearing Seat Belt	Drove Under the Influence in the Past Year	Often Drove or Rode Without Wearing Seat Belt	Drove Under the Influence in the Past Year	Often Drove or Rode Without Wearing Seat Belt
Total	**38.3**	**21.0**	**50.2**	**23.8**	**11.0**	**11.5**
Gender						
Male	42.8	25.4	49.3	24.8	15.7	**15.1**
Female	31.3	14.3	53.3	19.6	6.7	**8.2**
Age Group in Years						
16-17	26.8	24.2	37.4	32.3	8.9	**15.3**
18-20	46.3	24.7	67.9	28.5	21.1	**17.4**
21-25	50.9	23.4	62.0	24.9	22.1	**16.7**
25-34	37.3	21.2	52.7	25.9	14.3	**13.4**
35+	31.0	17.0	40.4	20.4	8.0	**9.6**
Race/Ethnicity[1]						
White, non-Hispanic	42.1	21.0	54.5	24.0	12.5	**11.3**
Black, non-Hispanic	23.6	21.0	28.9	29.0	5.8	**13.7**
Hispanic	33.1	19.0	35.0	17.5	7.6	**11.5**
Population Density						
Large metro	34.5	16.5	44.2	19.5	10.5	**10.4**
Small metro	41.8	21.9	55.2	22.5	12.0	**12.0**
Nonmetro	39.9	30.9	50.8	33.1	10.6	**12.7**
Region						
Northeast	34.6	23.5	41.4	32.2	10.7	**13.7**
North Central	37.7	25.1	52.9	28.1	13.5	**14.0**
South	40.3	23.2	48.9	21.2	9.5	**11.1**
West	39.0	12.8	54.2	13.3	11.2	**7.5**
Adult Education[2]						
Less than high school	30.2	26.7	39.7	22.8	6.7	**14.8**
High school graduate	38.7	26.8	46.1	35.5	9.9	**14.6**
Some college	43.1	17.5	61.0	16.7	13.4	**10.6**
College graduate	43.3	8.8	57.0	*	13.4	**5.2**
Current Employment[3]						
Full-time	40.7	20.5	50.6	24.0	14.8	**12.6**
Part-time	44.5	17.7	71.5	23.4	11.4	**10.0**
Unemployed	33.1	35.9	*	*	13.5	**19.3**
Other[4]	33.1	15.6	45.9	16.1	4.4	**8.8**

Note 1: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

Note 2: Illicit drug use indicates use at least once in the past month of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP] and lysergic acid diethylamide [LSD]), heroin, or nonmedical use of psychotherapeutics.

Note 3: Heavy alcohol use is defined as drinking five or more drinks on the same occasion on each of 5 or more days in the past 30 days. By "occasion" is meant at the same time or within a couple hours of each other.

*Low precision; no estimate reported.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Chapter 12: Drug and Alcohol Abuse Treatment and Workplace Programs

Introduction

Many drug and alcohol abusers need treatment, but relatively few in need of treatment receive it. Based on NHSDA data adjusted for underestimation of hard-core drug users, Epstein and Gfroerer (1998a) estimated that in 1996 about 9.4 million persons were in need of drug abuse treatment. Of this total, 4.1 million had less severe problems and 5.3 million more severe problems needing treatment. Only about one-third (37%) or almost 2 million of those with more severe problems received treatment. The estimates of treatment need were based on the proportion of the population with dependence symptoms, heavy drug use, injection drug use, or having received treatment in the past year. As noted in Chapter 9, 1.5% of the total population reported three or more problems with marijuana use that are considered potential signs of dependence, 0.3% reported three or more problems with cocaine use, and 5% reported three or more problems with alcohol use.

In this chapter, the prevalence of substance abuse treatment in the past year, the prevalence of treatment by frequency of substance use, the perceived need for treatment, and substance abuse resources provided in the workplace by establishment location size are discussed for the population surveyed. Because the population surveyed by the NHSDA does not include other populations, such as homeless people not in shelters and institutionalized persons, among whom the prevalence of drug abuse and the receipt of treatment may be higher than in the general population (Bray & Marsden, 1999), the figures reported here may be underestimates of the portion of the population receiving treatment.

Prevalence of Drug and Alcohol Abuse Treatment (Table 12.1 and 12.2)

About 1% of the household population aged 12 or older (representing about 2.4 million persons) reported receiving some type of substance abuse treatment in the past year (Table 12.1). Fewer received treatment for drug abuse than for alcohol abuse. An estimated 0.7% (representing about 1.4 million persons) received treatment for drug abuse, and 1.0% (representing about 2.1 million persons) received treatment for alcohol abuse.[1]

Persons aged 18 to 25 were more likely than other age groups to have received treatment in the past year (Table 12.2). About 2% of those aged 18 to 25 received some form of substance abuse treatment in the past year, compared with about 1% of those aged 12 to 17 and those 26 or older. Young adults aged 18 to 25 were more likely than those in older age groups to have received drug abuse treatment in the past year and more likely to have received alcohol abuse treatment than were those aged 12 to 17 and those 35 or older. These higher rates of treatment among 18 to 25 year olds are consistent with their generally higher rates of drug and alcohol use compared with other age groups.

Males were about twice as likely as females (2% vs. 1%) to have received any substance abuse treatment in the past year. This difference was statistically significant for any substance abuse treatment and alcohol abuse treatment. There were no significant differences across racial/ethnic categories, population density categories, or regions in the percentage receiving treatment for alcohol abuse, drug abuse, or either.

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[1] The percentages receiving substance abuse treatment may include people receiving treatment for conditions related to drug and/or alcohol abuse, as well as those in treatment to stop drug and/or alcohol use. For a more detailed analysis of NHSDA treatment data using earlier survey years, see Gerstein, Foote, and Ghadialy (1997).

Prevalence of Treatment, by Frequency of Use (Table 12.3 and 12.4)

Table 12.3 presents the estimated percentages of past year marijuana and cocaine users who reported receiving drug abuse treatment by frequency of use. Note that the percentages receiving treatment are substantially higher than for the total population, which includes persons who use drugs and who do not. Although only about 3% of those who used marijuana on fewer than 12 days in the past year reported receiving drug treatment, about 6% of those who used marijuana daily or almost daily in the past year reported receiving drug treatment. For cocaine, the NHSDA samples of heavy users were too small to allow a detailed examination of differences in receipt of treatment.

Table 12.4 shows corresponding information for alcohol use and alcohol treatment. Respondents who drank on 51 or more days in the past year (2.0%) were more than three times as likely as those who drank on fewer than 12 days in the past year (0.6%) to report having received treatment for alcohol abuse.

Perceived Need for Alcohol or Drug Treatment (Table 12.5)

An estimated 0.6% of the surveyed population aged 12 or older reported they did not receive treatment for drug or alcohol abuse in the past year and reported they perceived the need for some type of substance abuse treatment in the past year. Perceived need for treatment was similar among age groups and by gender among those who had not received treatment. Overall and among those aged 26 or older, blacks were more likely than whites to perceive the need for treatment.[2] Overall, those living in large metropolitan areas were more likely than those in nonmetropolitan areas to perceive they needed treatment. Among those aged 35 or older, residents of the Northeast were more likely than those in the North Central region to perceive the need for treatment. Among the total population and those aged 18 to 34, those with less than a high school education were more likely than those with more education to perceive the need for treatment. Among the total population and those aged 18 to 25, those who were unemployed were more likely than those who were employed full- or part-time to have perceived the need for treatment in the past year.

Prevalence of Workplace Drug and Alcohol Programs and Policies (Table 12.6)

Table 12.6 shows that past month use of illicit drugs was lower among employees of larger establishments although access to drug and alcohol resources in the workplace was higher among these employees.[3] About 5% of individuals employed in establishments with 500 or more employees used drugs in the past month compared with 9% in establishments with 1 to 24 employees and 8% in establishments with 25 to 499 employees. In both small and larger establishments drug use was greater among those aged 18 to 25 than other age groups. More than 90% of individuals in large establishments with 500 or more employees compared with about half of individuals in establishments with 1 to 24 employees were in establishments that provided information or had a written policy about drug or alcohol abuse. Three-fourths of employees in large establishments had access to an Employee Assistance Program (EAP) or were in establishments that tested for drugs compared with about half of employees in medium-sized establishments or one-fourth of employees in small establishments.

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[2] In the interest of readability for this report, "white" is used to indicate "white, non-Hispanic" and "black" to indicate "black, non-Hispanic."

[3] Data reported here refer to drug and alcohol programs and policies in the location where the respondent worked, not to all locations of the establishment.

Discussion

In 1998, the number of individuals receiving treatment for alcohol or drug abuse was much smaller than the number who reported having problems resulting from their use of substances. For example, although an estimated 10.8 million people in the U.S. noninstitutionalized population aged 12 or older reported three or more problems related to their alcohol use in the past year (see Chapter 9), only about 2.1 million reported receiving treatment for that use. Similarly, 1.5% and 0.3% of the population reported three or more problems resulting from marijuana and cocaine use, respectively, while only 0.7% of the population reported receiving treatment for illicit drug use. Young adults aged 18 to 25 were more likely than other age groups to have received treatment in the past year, perhaps related to their higher rates of substance use.

Finally, one finding that needs further investigation and that has potentially serious implications is the relationship between substance use and employee reports of resources concerning substance abuse in the workplace. Namely, 1998 data show that past month use of illicit drugs was lower in larger establishments while access to drug and alcohol resources in the workplace tended to be higher. These findings may indicate that workplace policies and programs are having a significant and positive effect on preventing or reducing substance use. Alternatively, larger establishments may have more stringent hiring procedures that screen out potential alcohol and drug abusers.

Table 12.1 Percentage and Estimated Number (in Thousands) of Respondents Aged 12 or Older Reporting Having Received Substance Abuse Treatment in the Past Year: 1998

	Past Year		
Type of Treatment	Percentage	Number Receiving (in 1,000s)	Unweighted *n*
Drug Abuse	0.7	1,448	(25,491)
Alcohol Abuse	1.0	2,110	(25,498)
Any Substance Abuse	1.1	2,404	(25,498)

Note 1: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

Note 2: The percentage receiving treatment includes only those respondents who reported having received treatment in the past year and having used alcohol or illicit drugs in their lifetime. Those who reported receiving treatment but never having used the substance were excluded from the analysis.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 12.2 Percentage Reporting Having Received Treatment in the Past Year for Drug or Alcohol Abuse, by Demographic Characteristics: 1998

Demographic Characteristic	Received					
	Drug Abuse Treatment[1]	(Unweighted *n)*	Alcohol Abuse Treatment[2]	(Unweighted *n)*	Any Substance Abuse Treatment[3]	(Unweighted *n)*
Total	**0.7**	**(25,491)**	**1.0**	**(25,498)**	**1.1**	**(25,498)**
Age Group in Years						
12-17	0.8	(6,776)	0.7	(6,776)	0.9	(6,777)
18-25	1.4	(7,317)	1.5	(7,318)	1.9	(7,317)
26-34	0.7	(4,535)	1.0	(4,537)	1.0	(4,537)
35+	0.5	(6,863)	0.9	(6,867)	1.0	(6,867)
Gender						
Male	1.0	(11,255)	1.3	(11,261)	1.5	(11,260)
Female	0.4	(14,236)	0.6	(14,237)	0.7	(14,238)
Race/Ethnicity[4]						
White, non-Hispanic	0.6	(11,706)	1.0	(11,709)	1.1	(11,709)
Black, non-Hispanic	1.0	(5,811)	1.1	(5,814)	1.2	(5,813)
Hispanic	0.7	(6,793)	0.9	(6,795)	1.0	(6,795)
Population Density						
Large metro	0.6	(12,981)	1.1	(12,985)	1.2	(12,985)
Small metro	0.8	(7,629)	0.9	(7,630)	1.2	(7,630)
Nonmetro	0.6	(4,881)	0.8	(4,883)	0.9	(4,883)
Region						
Northeast	0.8	(3,118)	1.4	(3,121)	1.5	(3,121)
North Central	0.7	(3,678)	0.9	(3,680)	1.0	(3,679)
South	0.6	(8,501)	0.8	(8,503)	0.9	(8,503)
West	0.7	(10,194)	0.9	(10,194)	1.2	(10,195)

Note 1: The unweighted *n*'s for alcohol abuse treatment and drug abuse treatment are slightly smaller for any substance abuse treatment because of differing patterns of nonresponse across the demographic groups.

Note 2: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

Note 3: The percentage receiving treatment includes only those respondents who reported having received treatment in the past year and having used alcohol or illicit drugs in their lifetime. Those who reported receiving treatment but never having used the substance were excluded from the analysis.

[1] This category may include some individuals who have also received alcohol abuse treatment.

[2] This category may include some individuals who have also received other drug abuse treatment.

[3] This category includes individuals who have received alcohol abuse treatment, drug abuse treatment, or both.

[4] The category "other" for race/ethnicity is not included.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 12.3 Percentage of Past Year Users of Marijuana or Cocaine Who Received Treatment in the Past Year for Drug Abuse, by Frequency of Drug Use: 1998

Frequency of Drug Use	Percentage Receiving Treatment[1]	(Unweighted *n*)
A. Used Marijuana in the Past Year		
Total	**3.7**	**(3,444)**
Number Receiving Treatment (in 1,000s)	(701)	
Number of Days Used in Past Year		
Fewer than 12 days	3.0	(1,510)
12-50 days (1-4 days per month)	2.8	(697)
51-300 days (1-6 days per week)	4.6	(852)
More than 300 days (daily or almost daily)	6.3	(385)
12 or more days (1+ days per month)	4.3	(1,934)
51 or more days (1+ days per week)	5.1	(1,237)
B. Used Cocaine in the Past Year		
Total	**9.9**	**(709)**
Number Receiving Treatment (in 1,000s)	(375)	
Number of Days Used in Past Year		
Fewer than 12 days	8.5	(441)
12-50 days (1-4 days per month)	10.3	(144)
51-300 days (1-6 days per week)	*	(101)
More than 300 days (daily or almost daily)	*	(23)
12 or more days (1+ days per month)	12.0	(268)
51 or more days (1+ days per week)	*	(124)

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

*Low precision; no estimate reported.

[1] The percentage receiving drug abuse treatment may include people receiving treatment related to drug abuse, as well as to those in treatment to stop drug use. This category also may include some individuals who have also received alcohol abuse treatment.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 12.4 Percentage of Past Year Users of Alcohol Who Received Treatment in the Past Year for Alcohol Abuse, by Frequency of Alcohol Use: 1998

Frequency of Alcohol Use	Percentage Receiving Treatment[1]	(Unweighted *n*)
Total	**1.2**	**(14,596)**
Number Receiving Treatment (in 1,000s)	1,664	
Number of Days Used in Past Year		
Fewer than 12 days	0.6	(6,253)
12-50 days (1-4 days per month)	0.9	(4,029)
51-300 days (1-6 days per week)	2.1	(3,571)
More than 300 days (daily or almost daily)	2.0	(743)
12 or more days (1+ days per month)	1.5	(8,343)
51 or more days (1+ days per week)	2.0	(4,314)

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

[1] The percentage receiving alcohol abuse treatment may include people receiving treatment related to drug abuse, as well as to those in treatment to stop drug use. This category also may include some individuals who have also received drug abuse treatment.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 12.5 Percentage Reporting They Did Not Receive Treatment for Drug or Alcohol Abuse in the Past Year Who Perceive the Need for Treatment, by Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**0.6**	**0.8**	**0.6**	**0.6**	**0.6**
Gender					
Male	0.7	0.9	0.5	0.7	**0.7**
Female	0.6	0.6	0.8	0.5	**0.6**
Race/Ethnicity[1]					
White, non-Hispanic	0.6	0.7	0.4	0.5	**0.5**
Black, non-Hispanic	0.4	1.2	1.8	1.5	**1.3**
Hispanic	0.8	1.0	1.0	0.8	**0.9**
Population Density					
Large metro	1.0	0.5	0.8	0.9	**0.8**
Small metro	0.4	1.1	0.5	0.5	**0.6**
Nonmetro	0.3	0.5	0.6	0.2	**0.3**
Region					
Northeast	0.2	0.5	0.8	1.4	**1.1**
North Central	1.1	0.5	0.7	0.3	**0.5**
South	0.6	0.8	0.7	0.4	**0.5**
West	0.5	1.2	0.4	0.5	**0.6**
Adult Education[2]					
Less than high school	N/A	1.9	2.2	0.9	**1.2**
High school graduate	N/A	0.9	0.7	0.3	**0.4**
Some college	N/A	0.2	0.4	0.6	**0.5**
College graduate	N/A	0.2	0.2	0.8	**0.6**
Current Employment[3]					
Full-time	N/A	0.6	0.6	0.7	**0.6**
Part-time	N/A	0.5	*	0.5	**0.5**
Unemployed	N/A	3.7	2.4	3.1	**3.1**
Other[4]	N/A	0.6	0.4	0.4	**0.4**

N/A: Not applicable.

*Low precision; no estimate reported.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[3] Data on current employment are not applicable for youths aged 12 to 17. Total refers to adults aged 18 or older (unweighted *n*=18,722).

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 12.6 **Percentage of Full-Time Workers Aged 18 to 49 Reporting Past Month Illicit Drug Use and That Their Workplace Provides Drug and Alcohol Information on, a Written Policy for, or Access to an Employee Assistance Program (EAP), by Respondent Age and Establishment Location Size: 1998**

Establishment Location Size/ Employee Age Group	Used Illicit Drug in Past Month	Workplace Characteristics							
		Provides Info		Written Policy		Access to EAP		Test for Drugs[1]	
		Yes	DK	Yes	DK	Yes	DK	Yes	DK
1-24 Employees									
Total	**9.4**	**53.6**	**1.4**	**47.7**	**5.8**	**25.7**	**17.8**	**26.2**	**9.0**
18-25	18.2	57.9	1.3	51.2	7.4	17.6	26.2	24.0	10.3
26-34	8.5	52.9	1.2	47.0	6.2	25.1	18.0	29.1	9.6
35-49	6.0	52.1	1.5	46.4	4.8	29.8	13.8	25.6	8.1
25-499 Employees									
Total	**8.0**	**85.2**	**2.2**	**82.4**	**5.8**	**54.6**	**23.2**	**54.4**	**11.2**
18-25	15.2	81.4	1.9	78.5	7.7	34.7	34.4	50.3	11.9
26-34	7.2	85.9	2.2	83.6	5.0	58.1	20.4	55.4	10.7
35-49	5.8	86.2	2.3	83.1	5.5	60.1	20.6	55.4	11.2
500+ Employees									
Total	**4.8**	**92.5**	**1.6**	**90.7**	**5.4**	**78.2**	**13.9**	**71.1**	**9.8**
18-25	10.6	88.4	0.7	86.5	6.9	56.3	25.4	68.6	8.9
26-34	4.6	93.2	2.1	89.2	7.4	77.3	13.4	73.2	11.1
35-49	3.5	93.1	1.5	92.5	3.9	84.1	11.3	70.5	9.3

Note 1: Percentages are based on the number of employed respondents who reported "Yes" or "Don't Know" to the workplace questions. The percentages responding "Yes," "Don't Know," and "No" to these questions add to 100.0%.

Note 2: Establishment location size was defined as the number of people who work at the same office location as the respondent. The following question was asked: "Thinking about the location where you work, about how may people work for your employer out of this office, store, etc.?" Response choices were (1) less than 10 people, (2) 10-24 people, (3) 25-99 people, (4) 100-499 people, or (5) 500 people or more.

DK: Don't know.

[1] Includes testing at hiring, at random, upon suspicion of supervisor, and after a workplace accident.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Chapter 13: Substance Use Among Special Populations

Introduction

The large NHSDA sample sizes allow estimates of the prevalence of drug use to be made for a variety of special populations, in addition to demographic subgroups defined by age, gender, race/ethnicity, population density, region, adult education, and current employment. This chapter presents drug use prevalence information by the following characteristics: (a) indicators of socioeconomic status, including family income, health insurance coverage, and receipt of welfare assistance; (b) arrests or criminal-type behaviors in the past 12 months; (c) pregnancy status among women of childbearing age (i.e., ages 15 to 44); and (d) school dropout status.[1] Findings from this chapter are expected to be useful to policymakers and service providers who work with members of these special populations and more generally to extend knowledge of how substance abuse behaviors are distributed across important population subgroups. The final set of findings presented in this chapter focuses on drug use among youths and their exposure to drug prevention messages.

Drug Use, by Family Income, Health Insurance Status, and Welfare Assistance (Tables 13.1 and 13.2)

This section examines the relationships of past year drug use and total family income, health insurance status, and receipt of welfare assistance by age group.[2] Considering the important public policy interest in drug use among welfare recipients, this type of information is critical.[3] These variables, however, are highly correlated with one another. Therefore, more complex multivariate analyses would be needed to understand fully the independent or combined effects of these socioeconomic characteristics.

Table 13.1 shows past year rates of any illicit drug use, marijuana use, and cocaine use by total family income for calendar year 1997 and health insurance status; estimates are shown for each age group and for the total population. For the total population, people whose total family income in 1997 was at the lowest level (less than $9,000) were significantly more likely than people in the other income levels to have used any illicit drug, marijuana, or cocaine in the past 12 months. Overall, people with total family incomes of $75,000 or more also had a significantly lower rate of cocaine use compared with people having incomes of $9,000 to $74,999, although the differences were not large. Among youths aged 12 to 17, rates of drug use were unrelated to family income level. Among young adults aged 18 to 25, rates of any illicit drug use and marijuana use were significantly higher for people with family incomes less than $9,000 compared with those whose family incomes ranged from $9,000 to less than $75,000. Among young adults, those with family incomes of $75,000 or more were more likely than those with incomes of $20,000 to $74,999 to have used any illicit drug or marijuana. Among adults aged 26 to 34, those with family incomes of less than $9,000 were about twice as likely to use any illicit drug and marijuana compared with those with family incomes of $20,000 to $74,999. Few differences in cocaine use by income level were found by age group.

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[1] To ensure acceptable reliability of estimates for pregnant women and school dropouts, estimates for women of childbearing age and estimates by school dropout status include data from the 1997 and 1998 NHSDAs.

[2] Measures of family income and welfare assistance in 1998 are not strictly comparable to corresponding measures in prior years. In the 1998 NHSDA, family income and receipt of welfare assistance were measured for calendar year 1997. In comparison, these measures in the 1997 NHSDA pertained to the 12-month period prior to the interview. In 1998, receipt of welfare assistance also was measured through multiple questions asking about receipt at any time during 1997 of (a) "any government payments, such as temporary assistance for needy families or public assistance, because of low income" and (b) "any other kind of welfare assistance, such as help with getting a job, placement in education or job training programs, or help with transportation, child care, or housing." In the 1997 NHSDA, respondents were asked whether they or any other family members living in the household (if applicable) received "public assistance or welfare payments from the state or local welfare office."

[3] For example, the *Contract With America Advancement Act of 1996* (Public Law 104-121, enacted March 29, 1996) stipulates that alcoholism and drug addiction may no longer be considered disabilities under the Federal Social Security Act (42 U.S.C. 423(d)(2)). For a cost-benefit analysis of drug treatment for welfare recipients, see Gerstein, Johnson, Larison, Harwood, and Fountain (1996).

In the total population, people without health insurance were more than twice as likely as those with insurance to have used any illicit drug (20% vs. 9%), marijuana (17% vs. 7%), or cocaine (4% vs. 1%) in the past year. Drug use was not significantly related, however, to health insurance status for youths.

For the total population, the estimates of drug use were nearly twice as high among people who reported that they or someone in their household received welfare assistance during calendar year 1997 (Table 13.2). For example, 18% of people in households where someone had received welfare in 1997 reported illicit drug use in the 12 months prior to the interview compared with about 10% of those in households where no family member received welfare. Among adults aged 35 or older, those who received welfare were four times more likely than nonrecipients to have used cocaine in the past year. Findings were not consistent for other age groups or across drugs, however. For example, no significant differences in any illicit drug use, marijuana use, or cocaine use were found between welfare recipients and nonrecipients aged 18 to 25.

Because significant relationships between drug use and receipt of welfare assistance were not consistently observed across the different age groups, the previous findings should be interpreted with caution. In particular, the prevalences of past year use of any illicit drug and marijuana in 1998 were highest among young adults and youths (see Table 2.10). Further analysis of these NHSDA data also indicate that people aged 12 to 25 comprised about 35% of the people in households where someone received welfare assistance (data not shown in Table 13.2), even though these two age groups comprised less than one-fourth of the total population aged 12 or older in 1998 (Table 1.3). These NHSDA estimates are consistent with U.S. Bureau of the Census data, which show that more than three-fourths of people receiving Aid to Families with Dependent Children (AFDC) or General Assistance benefits were under the age of 18, and that more than three-fourths of mothers receiving AFDC were under the age of 35 (U.S. Bureau of the Census, 1996).[4] Therefore, the relationships between drug use and welfare assistance in the total population may be due in part to a disproportionate representation of youths and young adults in the "do receive" welfare assistance category. Multivariate analyses could help establish whether receipt of welfare assistance is an independent predictor of drug use, or whether the observed relationship between drug use and welfare assistance in the total population is an artifact due to the confounding influence of age.

Drug Use and Arrests (Table 13.3)

Table 13.3 shows the relationships between past year illicit drug use, episodes of drunkenness, and being arrested and booked for a criminal offense in the past year. Although the percentages of people who reported being arrested and booked in the past year were low, those who used illicit drugs in the past year were about 10 times more likely than people who had not used illicit drugs to have been arrested and booked in the past year (8.0% vs. 0.8%). In addition, past year illicit drug users were about 12 times more likely than nonusers to report being arrested and booked for larceny/theft; more than 20 times more likely to be arrested and booked for such offenses as possession or sale of drugs, drunkenness, or liquor law violations; about 7 times more likely to be arrested and booked for driving under the influence; and about 6 times more likely to be arrested and booked for burglary or on an assault charge other than aggravated assault.

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[4] The NHSDA estimates presented above for the percentage of youths and young adults among people in households receiving welfare assistance are lower than the Census population data because the latter are restricted to actual recipients of benefits. In comparison, NHSDA respondents would still be included in the "do receive" welfare assistance category even if they were not the direct recipients of assistance—as long as someone in the household was a recipient. Thus, for example, a respondent over the age of 35 who was living in the same household with a grandchild receiving AFDC would be included in the "do receive" welfare assistance category.

Similarly, people who were drunk on 51 or more days in the past year were about 7 times more likely to have been arrested and booked compared with people who had not been drunk this often (9.2% vs. 1.3%). With regard to specific offenses, people who were drunk on 51 or more days in the past year were nearly 20 times more likely than people who had not been drunk this often to be arrested and booked for drunkenness or liquor law violations; 8 times more likely to be arrested and booked for driving under the influence; and 5 to 11 times more likely to be arrested and booked for larceny or theft, assaults, and possession or sale of drugs.

Drug Use and Criminal Behaviors (Tables 13.4 and 13.5)

The 1998 NHSDA included questions about criminal or other potentially unlawful behaviors, regardless of whether these behaviors resulted in an arrest. Both youths and adults were asked whether they did any of the following in the past 12 months: stole or tried to steal something worth more than $50; sold illegal drugs; carried a handgun;[5] or attacked someone with the intent to cause serious injury. Youths also were asked whether they got into a serious fight at school or took part in a gang fight in the past 12 months.

Tables 13.4 and 13.5 indicate the percentages of youths and adults, respectively, who engaged in these different behaviors in the past year according to whether they used illicit drugs or got drunk on 51 or more days during that same period. Also shown are estimated percentages of youths and adults who engaged in any of the behaviors shown in the respective tables. Where estimates had adequate precision to be reported, youths and adults who used illicit drugs or got drunk on 51 or more days in the past year were significantly more likely than their counterparts to have engaged in each of these different behaviors. In particular, 57% of youths who used illicit drugs and 75% of youths who were drunk on 51 or more days in the past year engaged in one or more of the six behaviors shown in Table 13.4. These rates were more than twice the rates for youths who did not use illicit drugs (24%) or get drunk on 51 or more days in the past year (29%). Similarly, 21% of adults who used illicit drugs and 26% of adults who got drunk on 51 or more days in the past year engaged in one or more of the four behaviors shown in Table 13.5 compared with about 7% to 8% of adults who did not use illicit drugs or get drunk on 51 or more days.

These relationships between substance use and other behaviors among youths are consistent with a body of literature showing positive associations between delinquent behaviors and alcohol or illicit drug use (e.g., Donovan & Jessor, 1985; DuKarm, Byrd, Auinger, & Weizman, 1996; DuRant, Kahn, Beckford, & Woods, 1997; Ellickson, Saner, & McGuigan, 1997; Elliott, Huizinga, & Menard, 1989). Due to the cross-sectional design of the NHSDA, however, these findings do not establish a causal link between illicit drug use or being drunk on a frequent basis and these other criminal or problem behaviors. Nevertheless, these findings do suggest the importance of framing drug abuse prevention efforts within the broader context of adolescent behavior.

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[5] Carrying a handgun would be considered a criminal behavior if a person carried an unregistered handgun or carried a concealed handgun where this was not permitted.

Drug Use, "Binge" Alcohol Use, Cigarette Use, and Pregnancy (Table 13.6)

Given the deleterious effects of drug use on human embryos and fetuses, substantial public health attention has been directed toward estimating the number of pregnant women who use licit and illicit drugs and trying to reduce these numbers (NIDA, 1996; Su et al., 1997). Consistent with this attention, Table 13.6 explores the relationship between pregnancy among females aged 15 to 44 and past month illicit drug use, "binge" alcohol use (drinking five or more drinks on the same occasion on at least 1 day during the past 30 days), and past month cigarette use. Except for women who had been pregnant for less than 1 month, these measures of past month use indicate use during pregnancy. To ensure adequate precision of estimates for pregnant women, estimates in Table 13.6 are based on combined data from the 1997 and 1998 NHSDAs and represent annual *average* estimates for these 2 years.

Among women aged 15 to 44 who were currently pregnant, about 3% used one or more illicit drugs in the past month, 2% had engaged in "binge" alcohol use, and 22% were past month cigarette users. These percentages translate to approximately 57,000 pregnant women who used any illicit drug in the past month, 48,000 who were "binge" drinkers, and almost half a million who smoked cigarettes (OAS, 1999c, Tables 18A, 22A, 23A). Women in this age group who were not pregnant were about 3 to 6 times more likely than pregnant women to report illicit drug use or "binge" alcohol use in the past month. Women who were not pregnant also were significantly more likely than pregnant women to be current smokers (32% vs. 22%). These findings suggest that most women who use illicit drugs, alcohol, or cigarettes reduce or curtail their use when they become pregnant. Other NHSDA data, however, suggest that many women who used these substances before becoming pregnant resume their substance use after giving birth (OAS, 1998c, Table 17B).

Although the general pattern was for pregnant women to have significantly lower rates of current illicit drug use, "binge" alcohol use, and cigarette use compared with women who were not pregnant, there were some notable exceptions. Specifically, rates of illicit drug use among pregnant black and Hispanic women did not differ significantly from the corresponding rates among their counterparts who were not pregnant.[6] Similarly, black women and unmarried women who were pregnant had rates of past month cigarette use that were comparable to the rates among their counterparts who were not pregnant.

Among women who were pregnant, those who were aged 15 to 25 or unmarried were significantly more likely than women aged 25 to 44 and married women to have used illicit drugs in the past month; these patterns were consistent with higher rates of illicit drug use among younger and unmarried women who were not pregnant. With respect to race/ethnicity, black women who were pregnant were significantly more likely than their white counterparts to be past month illicit drug users. In comparison, rates of illicit drug use in the past month did not differ significantly between black and white women who were not pregnant. The prevalence of current cigarette use also was significantly lower among Hispanic pregnant women compared with black women who were pregnant.

These analyses did not control for associations between age, marital status, and education, except to exclude pregnant women under the age of 18 from the education estimates. Consequently, associations between substance use and marital status among pregnant women may reflect the higher rates of use among younger pregnant women. Similarly, associations between some rates of substance use and race/ethnicity among pregnant women could reflect racial/ethnic differences in the age and marital status of pregnant women (National Center for Health Statistics [NCHS], 1998). Multivariate analyses would help to establish whether characteristics such as race/ethnicity and marital status are independent risk factors for substance use among pregnant women, when associations between these and other demographic characteristics are taken into account.

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[6] In the interest of readability for this report, "white" is used to indicate "white, non-Hispanic" and "black" to indicate "black, non-Hispanic."

Drug Use and School Dropout Status (Table 13.7)

Most research to date suggests that adolescents who do not complete high school are more likely to be substance users compared with students who remain in school (Mensch & Kandel, 1988). An analysis of adolescents in the 1991 NHSDA also showed that 16 and 17 year olds who had dropped out of school were significantly more likely than those who were currently enrolled to be heavy alcohol users, heavy cigarette smokers, and frequent users of marijuana, cocaine, and psychotherapeutics in the past year (Flewelling et al., 1993). Similarly, Gfroerer, Greenblatt, and Wright (1997) analyzed 1991 through 1993 NHSDA data for the college-age population[7] and found that high school dropouts were significantly more likely to be current users of marijuana and cigarettes compared with those who completed high school or were currently enrolled in college. Other studies have shown that drug use often precedes dropping out of school (Friedman, Glickman, & Utada, 1985; Mensch & Kandel, 1988; Newcomb & Bentler, 1986), although drug use in and of itself has not been demonstrated to be a definitive cause of dropping out, nor is it a common reason given by dropouts to explain why they left school (McMillen, 1994). In addition to these studies demonstrating a relationship between drug use and dropping out of high school, Newcomb and Bentler (1988) found that young adults who had used illicit drugs during adolescence were less likely than nonusers to pursue a college education.

Table 13.7 compares rates of substance use among youths aged 12 to 17 and young adults aged 18 to 25 according to whether they could be considered school dropouts. Youths and young adults were classified as being school dropouts if they (a) had less than 12 years of education (i.e., had not completed high school), (b) reported that they were not currently enrolled in school, and (c) did not report being students in the employment status question.[8] Among school dropouts, Table 13.7 also shows rates of substance use according to whether a person left school to get a job,[9] or for some other (or unknown) reason. In addition, Table 13.7 shows estimates for two groups of youths: those aged 12 to 15 and those aged 16 to 17. Estimates are not shown for adults older than 25 because the event of dropping out of school would be more distant in time from any substance use that occurred in the more recent past (i.e., the past year). Table 13.7 shows annual average estimates from the combined 1997 and 1998 NHSDAs in order to increase the sample sizes of school dropouts and improve the precision of estimates.

Among people aged 12 to 25 overall and among youths aged 16 to 17, school dropouts were significantly more likely than those who were not dropouts to be past year users of any illicit drug, marijuana, and cocaine and to have been drunk on 51 or more days in the past year. In particular, more than half of youths aged 16 to 17 who were dropouts used any illicit drug or marijuana in the past year compared with about 25% to 28% of their counterparts who had not dropped out of school. Similarly, the rates of cocaine use and being drunk on 51 or more days in the past year were about 3 to 4 times higher for those aged 16 to 17 who had dropped out of school compared with those who were not dropouts.

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[7] Defined as persons aged 17 to 22 who were not enrolled in high school and had not completed 4 years of college.

[8] Respondents who were interviewed during summer months when school was not likely to be in session and reported that they were not currently enrolled in school were not classified as school dropouts. In addition, one respondent who reported zero years of education was classified as being a dropout despite reporting current enrollment.

[9] Including respondents who left school in order to learn a skilled trade.

Among young adults aged 18 to 25, rates of substance use shown in Table 13.7 did not differ significantly between those who had dropped out of school and those who were not classified as dropouts. However, more detailed examination of the reasons that young adults left school indicated that those who left school for reasons other than to get a job or learn a skilled trade had significantly higher rates of illicit drug and marijuana use compared with those who were not classified as dropouts. Furthermore, young adults who left school to get a job had somewhat *lower* rates of illicit drug and marijuana use compared with those who were not dropouts. The lack of significant differences in rates of being drunk on 51 or more days in the past year among young adults is consistent with findings of Gfroerer et al. (1997) that educational status was not a significant predictor of heavy alcohol use in the college-age population. However, these findings should be interpreted with caution because the NHSDA variable focusing on the motivation for dropping out of school appears to be related to race/ethnicity. In particular, Hispanic respondents in the NHSDA who had dropped out of school were more likely than their white or black counterparts to report that they left school to get a job (data not shown in Table 13.7). Therefore, further analyses of relationships between drug use and motivations for leaving school would need to take into account potential interactions between race/ethnicity (or other demographic characteristics) and specific reasons for dropping out of school.

Drug Use Among Youths, by Exposure to Prevention Messages (Table 13.8)

Table 13.8 presents findings on selected measures of substance use among youths and exposure to different sources of prevention messages. Youths who used illicit drugs in the past year were significantly less likely than youths who had not used drugs to report that they received prevention messages in a special class about alcohol or other drugs at school or as part of another regular class, such as a health class, although these differences were not large. Nearly half of youths who used illicit drugs in the past year reported that they received education or information about alcohol or other drugs as part of a regular class at school, and nearly 30% of youths who used illicit drugs reported being in a special class about alcohol or other drugs at their schools. Youths who were drunk on 51 or more days in the past year did not differ significantly from their counterparts with regard to receipt of alcohol or other drug education as part of a special class.

In addition, findings from Table 13.8 suggest that youths' exposure to prevention messages outside school, such as through the media, was fairly widespread but appeared to be unrelated to illicit drug use or being drunk on 51 or more days in the past year. Nearly 80% of youths who used illicit drugs and more than three-fourths of youths who were drunk on 51 or more days in the past year reported being exposed to prevention messages outside school. Youths who did not use illicit drugs in the past year were somewhat more likely than youths who used drugs to have been exposed to prevention activities as part of their classes in school.

Discussion

This chapter has addressed the issue of drug use among several special populations. Principal findings were as follows:

- In general, family income below $9,000, lack of health insurance, and having a family member in the same household receiving welfare were associated with the highest past year prevalences of any illicit drug use, marijuana use, and cocaine use.
- In agreement with previous research using numerous data sources (Dembo, 1994; Harrison & Gfroerer, 1992), past year illicit drug use was consistently associated with being arrested and booked for criminal activities.

- For both youths and adults, use of illicit drugs or being drunk on 51 or more days in the past year were consistently related to a variety of criminal or potentially unlawful behaviors, regardless of whether these behaviors resulted in an arrest. For youths, these findings are consistent with other studies demonstrating associations between substance use and delinquent behaviors.

- Pregnant women were less likely than nonpregnant women to report past month illicit drug use, past month "binge" alcohol use, and past month cigarette use. These differences tended to be consistent irrespective of age, race/ethnicity, marital status, and educational attainment. However, other findings suggest that after giving birth, many women return to their previous levels of substance use.

- Among women who were currently pregnant, those aged 15 to 25 were significantly more likely to have used illicit drugs in the past month compared with women aged 26 to 44. Rates of illicit drug use and cigarette use among pregnant women also were higher among unmarried women and black women.

- Consistent with other literature, youths aged 12 to 17 and young adults aged 18 to 25 who had dropped out of school were significantly more likely than those who were not dropouts to have been past year users of any illicit drug, marijuana, or cocaine and to have been drunk on 51 or more days in the past year.

- Youths who used illicit drugs in the past year were significantly less likely than nonusers to report that they received prevention messages as part of a class in school. Youths' exposure to prevention messages outside school, such as through the media, was fairly widespread but was seemingly unrelated to illicit drug use or being drunk on 51 or more days in the past year.

It should be noted that the analyses in this chapter did not control for potential confounding demographic differences that might explain higher rates of substance use among some groups. In particular, the association between drug use and receipt of welfare assistance may reflect the younger age composition of households in which someone received welfare assistance.

In addition, the cross-sectional design and other features of the NHSDA do not permit any definite causal inferences to be made regarding associations between drug use and other characteristics of interest, such as criminal behaviors or dropping out of school. Nevertheless, the findings of significantly higher rates of drug use among youths who have dropped out of school underscore the importance of efforts to decrease school dropout rates. Likewise, the associations between drug use and other criminal or potentially unlawful behaviors clearly demonstrate that drug use does not occur in a vacuum. Consequently, these findings underscore the importance of drug prevention efforts taking into account all behaviors and their contexts, as opposed to focusing just on substance use data.

Table 13.1 **Percentage Reporting Any Illicit Drug Use, Marijuana Use, and Cocaine Use in the Past Year, by Age Group, Total Family Income, and Health Insurance Status: 1998**

Health Insurance Status/ Total Family Income	Age Group in Years				
	12-17	18-25	26-34	35+	Total
Total Family Income (Unweighted *n*)					
Less than $9,000	(525)	(1,004)	(288)	(527)	**(2,344)**
$9,000 - $19,999	(1,333)	(1,700)	(875)	(1,278)	**(5,186)**
$20,000 - $39,999	(1,964)	(2,298)	(1,550)	(2,000)	**(7,812)**
$40,000 - $74,999	(2,001)	(1,650)	(1,345)	(1,986)	**(6,982)**
$75,000 or more	(955)	(666)	(479)	(1,076)	**(3,176)**
Health Insurance Status (Unweighted *n*)					
With health insurance	(5,652)	(5,026)	(3,426)	(5,939)	**(20,043)**
Without health insurance	(1,126)	(2,292)	(1,111)	(928)	**(5,457)**
A. Any Illicit Drug Use in the Past Year					
Total Family Income					
Less than $9,000	21.2	36.9	22.2	6.2	**18.2**
$9,000 - $19,999	17.2	26.2	15.9	3.6	**10.5**
$20,000 - $39,999	16.8	24.4	12.3	6.1	**10.7**
$40,000 - $74,999	15.3	23.9	11.2	6.4	**9.9**
$75,000 or more	15.9	31.8	12.1	4.4	**9.0**
Health Insurance Status					
With health insurance	16.0	25.0	11.6	4.9	**9.2**
Without health insurance	19.4	34.1	17.7	11.9	**20.0**
B. Used Marijuana in the Past Year					
Total Family Income					
Less than $9,000	19.9	32.9	17.1	4.0	**15.3**
$9,000 - $19,999	14.3	22.6	12.5	2.3	**8.3**
$20,000 - $39,999	13.9	21.2	9.5	4.9	**8.8**
$40,000 - $74,999	13.6	21.0	8.2	4.7	**7.9**
$75,000 or more	13.2	28.8	9.6	3.2	**7.3**
Health Insurance Status					
With health insurance	13.9	22.3	8.8	3.5	**7.4**
Without health insurance	15.4	29.1	13.9	9.9	**16.5**
C. Used Cocaine in the Past Year					
Total Family Income					
Less than $9,000	2.9	6.1	5.2	2.1	**3.7**
$9,000 - $19,999	1.8	3.7	4.0	0.9	**1.9**
$20,000 - $39,999	2.0	4.1	2.6	0.9	**1.7**
$40,000 - $74,999	1.5	4.1	2.8	1.0	**1.7**
$75,000 or more	1.0	6.9	1.0	0.3	**1.1**
Health Insurance Status					
With health insurance	1.5	3.7	2.5	0.8	**1.4**
Without health insurance	3.1	7.4	3.6	2.0	**3.9**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 13.2 Percentage Reporting Any Illicit Drug Use, Marijuana Use, and Cocaine Use in the Past Year, by Age Group and Receipt of Welfare Assistance: 1998

Receipt of Welfare Assistance	Age Group in Years				
	12-17	18-25	26-34	35+	Total
Welfare Assistance (Unweighted *n*)					
Do receive	(799)	(950)	(530)	(477)	**(2,756)**
Do not receive	(5,979)	(6,368)	(4,007)	(6,390)	**(22,744)**
A. Any Illicit Drug Use in the Past Year					
Do receive	22.8	28.9	21.3	9.8	**18.0**
Do not receive	15.8	27.3	12.0	5.3	**10.1**
B. Used Marijuana in the Past Year					
Do receive	18.4	25.5	15.4	6.2	**13.9**
Do not receive	13.7	24.0	9.3	4.0	**8.3**
C. Used Cocaine in the Past Year					
Do receive	1.2	4.3	6.3	3.2	**3.8**
Do not receive	1.7	4.7	2.4	0.8	**1.6**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998

Table 13.3 **Percentage of Past Year Illicit Drug and Alcohol Users and Nonusers Reporting Having Been Arrested and Booked for Breaking a Law: 1998**

In Past Year Arrested and Booked for: (Unweighted *n*)	Illicit Drug Use in Past Year		Drunk 51 or More Days in Past Year		
	Yes (4,133)	No (21,367)	Yes (1,182)	No (24,318)	Total (25,500)
Larceny or Theft	1.2	0.1	1.0	0.2	**0.3**
Burglary or Breaking and Entering	0.6	0.1	0.9	0.1	**0.1**
Aggravated Assault	0.8	*	1.1	0.1	**0.1**
Other Assault	1.1	0.2	1.0	0.2	**0.3**
Motor Vehicle Theft	0.3	*	0.3	*	*
Robbery	0.4	*	0.6	*	**0.1**
Arson	0.1	*	0.2	*	*
Driving Under the Influence	2.3	0.3	3.1	0.4	**0.5**
Drunkenness or Liquor Law Violation	2.1	0.1	3.9	0.2	**0.3**
Possession or Sale of Drugs	2.7	0.1	2.6	0.3	**0.3**
Any of the Above	8.0	0.8	9.2	1.3	**1.6**

Note 1: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

Note 2: Any illicit drug use indicates use at least once of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP] and lysergic acid diethylamide [LSD]), heroin, or nonmedical use of psychotherapeutics at least once.

*Low precision; no estimate reported.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998

Table 13.4 Percentage of Past Year Illicit Drug and Alcohol Users and Nonusers Aged 12 to 17 Reporting Criminal Behaviors: 1998

	Illicit Drug Use in Past Year		Drunk 51 or More Days in Past Year		
In the Past Year, Respondent:	**Yes**	**No**	**Yes**	**No**	**Total**
Stole or Tried to Steal Something Worth More Than $50	16.9	2.0	32.5	3.7	**4.4**
(Unweighted *n*)	(1,211)	(5,455)	(171)	(6,495)	**(6,666)**
Sold Illegal Drugs	17.3	0.8	36.0	2.6	**3.5**
(Unweighted *n*)	(1,210)	(5,454)	(169)	(6,495)	**(6,664)**
Carried a Handgun	8.4	1.4	14.3	2.2	**2.5**
(Unweighted *n*)	(1,210)	(5,458)	(170)	(6,498)	**(6,668)**
Attacked Someone with the Intent to Seriously Hurt Them	19.9	4.3	28.8	6.2	**6.8**
(Unweighted *n*)	(1,211)	(5,459)	(171)	(6,499)	**(6,670)**
Got into a Serious Fight at School or Work	35.7	17.2	*	19.4	**20.2**
(Unweighted *n*)	(1,206)	(5,452)	(169)	(6,489)	**(6,658)**
Took Part in a Gang Fight	29.2	11.5	40.5	13.7	**14.4**
(Unweighted *n*)	(1,207)	(5,451)	(171)	(6,487)	**(6,658)**
Any of the Above	57.0	24.4	74.7	28.6	**29.7**
(Unweighted *n*)	(1,209)	(5,441)	(171)	(6,479)	**(6,650)**

Note: Any illicit drug use indicates use at least once of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP] and lysergic acid diethylamide [LSD]), heroin, or nonmedical use of psychotherapeutics at least once.

*Low precision; no estimate reported.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 13.5 Percentage of Past Year Illicit Drug and Alcohol Users and Nonusers Aged 18 or Older Reporting Criminal Behaviors: 1998

	Illicit Drug Use in Past Year		Drunk 51 or More Days in Past Year		
In the Past Year, Respondent:	**Yes**	**No**	**Yes**	**No**	**Total**
Stole or Tried to Steal Something Worth More Than $50	4.5	0.4	6.0	0.6	**0.8**
(Unweighted *n*)	(2,849)	(15,572)	(986)	(17,435)	**(18,421)**
Sold Illegal Drugs	9.5	0.2	10.8	0.8	**1.2**
(Unweighted *n*)	(2,850)	(15,572)	(987)	(17,435)	**(18,422)**
Carried a Handgun	10.6	6.2	12.6	6.4	**6.7**
(Unweighted *n*)	(2,853)	(15,572)	(990)	(17,435)	**(18,425)**
Attacked Someone with the Intent to Seriously Hurt Them	6.7	0.7	9.6	1.0	**1.3**
(Unweighted *n*)	(2,849)	(15,577)	(987)	(17,439)	**(18,426)**
Any of the Above	21.2	7.0	26.2	7.7	**8.4**
(Unweighted *n*)	(2,854)	(15,562)	(985)	(17,431)	**(18,416)**

Note: Any illicit drug use indicates use at least once of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP] and lysergic acid diethylamide [LSD]), heroin, or nonmedical use of psychotherapeutics at least once.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 13.6 **Percentage Reporting Past Month Illicit Drug Use, "Binge" Alcohol Use, and Cigarette Use in the U.S. Population of Females Aged 15 to 44, by Pregnancy Status and Demographic Characteristics: Annual Averages Based on 1997 and 1998 Samples Combined**

Demographic Characteristic	Past Month Illicit Drug Use		Past Month "Binge" Alcohol Use		Past Month Cigarette Use	
	Pregnant	Not Pregnant	Pregnant	Not Pregnant	Pregnant	Not Pregnant
Total	2.5	7.3	2.1	12.9	21.6	32.4
Age Group in Years						
15-25	4.2	12.3	2.1	16.8	26.2	34.0
26-44	1.2	4.8	2.1	11.1	17.9	31.7
Race/Ethnicity[1]						
White	1.6	7.6	1.8	15.1	22.9	35.8
Black	7.2	8.1	1.7	7.5	27.9	29.2
Hispanic	3.0	5.3	3.8	8.3	13.7	22.2
Marital Status						
Married	1.6	3.2	1.5	9.0	15.8	27.7
Not married[2]	4.6	11.7	3.3	17.2	34.4	37.6
Trimester[3]						
First	2.9	N/A	3.3	N/A	22.9	N/A
Second	2.4	N/A	1.9	N/A	19.1	N/A
Third	1.1	N/A	*	N/A	21.0	N/A
Adult Education[4]						
Less than high school	4.9	8.6	2.3	12.1	34.8	46.4
High school graduate	2.9	7.0	1.9	13.4	28.4	40.4
Some college	*	7.0	*	14.6	17.7	32.7
College graduate	*	3.7	2.4	11.5	*	15.8

Note 1: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

Note 2: Illicit drug use indicates use at least once in the past month of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP] and lysergic acid diethylamide [LSD]), heroin, or nonmedical use of psychotherapeutics.

Note 3: "Binge" alcohol use is defined as drinking five or more drinks on the same occasion on at least 1 day in the past 30 days. By "occasion" is meant at the same time or within a couple hours of each other.

Note 4: The sum of the pregnant and not pregnant females aged 15 to 44 is less than the total of all females aged 15 to 44 because of item nonresponse to the pregnancy question.

*Low precision; no estimate reported.
N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.
[2] Not married includes never married, divorced, separated, and widowed.
[3] Trimester not reported by all pregnant respondents.
[4] Data on adult education not shown for persons aged 15 to 17. Estimates for adult education are for persons aged 18 to 44.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1997 and 1998.

Table 13.7 Percentage Reporting Any Illicit Drug Use, Marijuana Use, Cocaine Use, and Alcohol Use in the Past Year, by Age Group, School Dropout Status, and Reasons for Leaving School: 1997 and 1998

School Dropout Status/ Reason for Leaving School	Age Group in Years			
	12-15	16-17	18-25	Total[1]
School Dropout Status (Unweighted *n*)				
School dropout[2]	(34)	(246)	(2,029)	**(2,309)**
Left school to get a job[3]	(2)	(32)	(561)	**(595)**
Left school other/unknown reason	(32)	(214)	(1,468)	**(1,714)**
Not a school dropout	(9,818)	(4,524)	(11,528)	**(25,870)**
A. Any Illicit Drug Use in the Past Year				
School dropout[2]	*	52.8	29.2	**31.2**
Left school to get a job[3]	*	*	21.3	**21.4**
Left school other/unknown reason	*	55.7	32.1	**34.4**
Not a school dropout	12.2	27.9	26.0	**21.8**
B. Used Marijuana in the Past Year				
School dropout[2]	*	51.4	25.4	**27.6**
Left school to get a job[3]	*	*	15.1	**15.4**
Left school other/unknown reason	*	54.1	29.1	**31.6**
Not a school dropout	9.5	25.4	23.0	**18.9**
C. Used Cocaine in the Past Year				
School dropout[2]	*	14.7	5.5	**6.3**
Left school to get a job[3]	*	*	4.5	**4.4**
Left school other/unknown reason	*	16.2	5.9	**6.9**
Not a school dropout	0.8	4.0	4.1	**3.0**
D. Drunk Alcohol on 51 or More Days in the Past Year				
School dropout[2]	*	13.3	9.4	**9.8**
Left school to get a job[3]	*	*	8.6	**8.3**
Left school other/unknown reason	*	14.7	9.7	**10.3**
Not a school dropout	1.4	4.7	9.0	**5.9**

Note: Due to improved procedures implemented in 1994, these estimates are not comparable with those presented in NHSDA Main Findings prior to 1994.

*Low precision; no estimate reported.

[1] Total is for youths and young adults aged 12 to 25.

[2] Did not graduate from high school, not currently enrolled in school, and did not report an employment status of "in school only." However, respondents who were interviewed during summer months when school was not likely to be in session and reported that they were not currently enrolled in school were not classified as school dropouts.

[3] Includes leaving school to enter an apprenticeship or learn a trade.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table 13.8 Percentage of Past Year Illicit Drug and Alcohol Users and Nonusers Aged 12 to 17 Reporting Exposure to Drug Education and Prevention Classes and Messages: 1998

In the Past Year, Received Drug or Alcohol Education or Prevention Information:	Illicit Drug Use in Past Year		Drunk 51 or More Days in Past Year		
	Yes	No	Yes	No	Total
(Unweighted *n*)	(1,234)	(5,544)	(172)	(6,606)	(6,778)
At School in Special Class About Drugs or Alcohol	28.4	35.2	26.7	34.3	**34.1**
At School in Regular Class (e.g., Health Class)	47.7	55.7	*	54.6	**54.4**
At School Outside Regular Class (e.g., Special Assemblies)	31.8	30.1	33.8	30.3	**30.4**
Outside School (e.g., TV, Radio)	77.4	79.6	75.6	79.3	**79.2**

Note: Any illicit drug use indicates use at least once of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP] and lysergic acid diethylamide [LSD]), heroin, or nonmedical use of psychotherapeutics at least once.

*Low precision; no estimate reported.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

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APPENDIX A

KEY DEFINITIONS

1972-1998 Survey Years

Appendix A: Key Definitions, 1972-1998 Survey Years

This appendix is essentially a glossary providing definitions for the use of illicit drugs, alcohol, and tobacco; demographic characteristics; and other terms used in this report. It also describes major changes in definitions across the survey years that may have an impact on interpretation of trends. Each entry begins with the current definition of the term, followed by previous definitions that differ from the current definition. Cross-references are included for related terms. Also included is other information regarding interpretation of the data, including such topics as decision rules with regard to rounding.

The National Household Survey on Drug Abuse (NHSDA) was conducted in 1971, 1972, 1974, 1976, 1977, 1979, 1982, 1985, 1988, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, and 1998. The first survey (1971) is not directly comparable to the other surveys and is not generally included in trend analyses. Since 1972, however, there has been a great deal of consistency in the questions designed to develop estimates of the prevalence of drug use. Minor changes in question wording have been made throughout the survey series to ensure more complete and accurate responses, but these changes are not expected to affect comparability of survey responses. Questions also have been added to the NHSDA at different points in time to reflect changes in the drugs of abuse. For example, questions about the use of the form of cocaine known as "crack" were added in 1988. Questions about smokeless tobacco products and additional questions about cigarette use were added in 1985.

The 1994 NHSDA fielded two questionnaires: NHSDA 1994-A (old), which replicated the data collection instruments and methodology used in 1985, 1988, 1990, 1991, 1992, and 1993; and NHSDA 1994-B (new), which was a revised questionnaire. The new revised questionnaire was designed to facilitate respondent cooperation, enhance the clarity of the questions, improve the accuracy of responses, and increase the reliability of measurements of drug use across survey years (OAS, 1996c). The 1995, 1996, 1997, and 1998 NHSDAs fielded questionnaires that replicated the data collection instruments and methodology used in 1994-B. Although data from the new questionnaires used in 1994-B, 1995, 1996, 1997, and 1998 may be used for measuring trends from 1994 to 1998, these data cannot be compared to those presented in NHSDA Main Findings prior to 1994. For this reason, an adjustment procedure was applied to data for years prior to 1994 in order to produce the trend analysis presented in this report.

Other changes in methodology and question wording that may have an effect on trend estimates also are noted in this appendix. For example, the NHSDA has used private, self-administered answer sheets to gather information on illicit drug use since 1972. Beginning in 1979, responses to the alcohol questions also were marked on private answer sheets rather than being spoken to the interviewer as in earlier surveys. Because of this change, caution should be used in interpreting changes in reported alcohol use from pre-1979 and post-1979 surveys. Changes in the definition of cigarette use in 1979 (i.e., had to have smoked five or more packs of cigarettes in their lifetime to be asked questions about current use) suggest that data from 1979 may not be directly comparable to data from other years. In 1994-B, 1995, 1996, 1997, and 1998, questions about tobacco use (i.e., cigarettes and smokeless tobacco) were asked using a self-administered answer sheet. In prior survey years, the questions about tobacco use were interviewer-administered.

Another change worth noting that may have an effect on trend analysis (but that is not otherwise noted in this appendix) concerns the treatment of missing data. From 1972 through 1982, if recency of use of a particular drug had not been determined, the case was treated as a nonuser in the past year or past month. In 1985, 1988, 1990, 1991, 1992, 1993, and 1994-A, both logical and statistical imputation procedures were used to impute, where possible, the values for missing data on the recency-of-use questions. This involved checking *any other variables in a record* that could yield evidence of use of that specific subject drug or class of drugs. For the 1994-B (new questionnaire), 1995, 1996, 1997, and 1998 questionnaires, new procedures for imputing data were developed. (For a discussion of the impact of this change, see OAS, 1996a, Appendix E.) Similar to previous years, logical imputation was carried out in the earliest stage of editing for the original recency-of-use variables. In 1994-B, 1995, 1996, 1997, and 1998, however, this procedure involved checking, for each recency-of-use variable, other variables *in the same answer sheet only* that could yield evidence of use of that specific subject drug or class of drugs.

Adult Education	SEE:	"Education."
Age		Age of the respondent was defined as "age at time of interview." This definition corresponds to the definition used in previous Main Findings, but differs from the definition used in the 1985 Population Estimates report, where age is defined as "age as of July 1, 1985."
Age Group		For the reported analyses, respondents were divided into four age groups: 12 to 17 (youths), 18 to 25 (young adults), 26 to 34 (middle adults), and ≥35 (older adults).
Alcohol	1994-B-1998:	Measures of use of alcohol in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last drank an alcoholic beverage?"
		Feeder question: "The next questions are about alcoholic beverages, such as, [beer, wine, liquor, brandy, and mixed drinks]."
	1985-1994-A:	"When was the most recent time that you had an alcohol drink, that is, of beer, wine, or liquor or a mixed alcoholic drink?"
	1991-1994-A:	". . . [beer, wine and liquor, like whiskey, gin, or scotch, including mixed alcoholic drinks like gin and tonic, and drinks like wine coolers, fortified wine, and champagne]."
	1985-1990:	". . . [beer, wine and liquor, like whiskey, gin, or scotch, including mixed alcoholic drinks like gin and tonic]."
	1982:	". . . [beer, wine, and liquor, like whiskey or gin]."
	1979:	". . . [alcoholic beverages -- beer, wine, whiskey, gin, other 'hard' liquors]."
	1974-1977:	". . . [alcoholic beverages -- beer, wine, and whiskey, or anything else to drink with alcohol in it]."
	1972:	". . . [beer; wine; hard liquor like cocktails or highballs, or on the rocks, or straight shots]."
	SEE:	"Current Drinker," "Heavy Use of Alcohol," "Prevalence," and "Recency of Use."

Alcohol Abuse Treatment	1998:	Two new questions were added to the survey. One focuses on whether respondents had received treatment or counseling for use of alcohol or any drug, not counting cigarettes, during the past 12 months. Another addresses the sources of payment for ANY treatment or counseling the respondent had received. The response set was expanded to include other payment options (a public assistance program other than Medicaid paid for last treatment; last treatment was ordered and paid for by the courts; last treatment was paid for by CHAMPUS or TRICARE, CHAMPVA, the VA, or by some other military health care) for the question asking respondents to indicate which sources paid for their last treatment or counseling.
	1997:	Question TX-8 was reworded to focus on the respondent's primary, not last, place of treatment, as follows: "What was the primary place where you received treatment the last time you started treatment for your alcohol or other drug use, not counting cigarettes?"
	1994-B-1996:	Respondents were asked to: "Please mark one box beside each type of treatment place [hospital overnight or inpatient; rehabilitation center overnight; rehabilitation center outpatient; mental health center outpatient, emergency room, private doctors office, prison or jail, self-help group, other place] to indicate whether you have received treatment for your alcohol use in that type of facility during the past 12 months."
	1991-1994-A:	Respondents were asked: "During the past 12 months, have you gotten any treatment for drinking--such as from a clinic, self-help group, counselor, doctor, or other professional?" The measure based on this question may include people who had received treatment for conditions related to alcohol use in addition to those who had received treatment to stop drinking.
Analgesics	1994-B-1998:	Measures of use of analgesics in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last used a pain killer that was not prescribed for you, or that you took only for the experience or feeling it caused?"

Feeder question: “This section is about the use of pain killers, which are known as analgesics. The questions ask only about prescription pain killers. Do not include over-the-counter pain killers, such as aspirin, Tylenol, Advil, Anacin, or others available over-the-counter. We’re interested only in use of prescription analgesics or pain killers that were not prescribed for you, or that you took only for the experience or feeling they caused.”

1985-1994-A: “When was the most recent time you took any analgesic for nonmedical reasons?”

Feeder question: “The next questions are about the use of analgesics. Analgesics are usually taken as painkillers, but people sometimes use them for other reasons. We’re interested in nonmedical use--using analgesics or painkillers on your own.”

1982: Respondents were told that this pill class includes painkilling pills that, unlike aspirin, are usually available only with a doctor’s prescription.

1979: “Sometimes doctors prescribe these pills to relieve pain. But besides the medical uses, people sometimes take these pills on their own to see how they work or just to feel good.”

SEE: “Nonmedical Use of Any Psychotherapeutic,” “Pill Cards,” “Prevalence,” and “Recency of Use.”

Answer Sheets

Since 1972, answer sheets have been used to ensure privacy of responses for questions on use of illicit drugs and other issues pertaining to the use of drugs. Beginning in 1979, answer sheets were used for alcohol use. The new design was implemented to (1) provide respondent training on the answer sheet procedure prior to its use for illicit substances, and (2) provide the same conditions of privacy for this drug as for the illicit drugs to encourage full disclosure. Answer sheets were added in 1982 for the nonmedical use of psychotherapeutics.

1998: Answer sheets were added for the social environment and parenting experiences modules. The workplace issues answer sheet was removed, and the drug experiences and youth experiences answer sheets were heavily revised.

1997: Answer sheets were added for youth experiences, drug experiences, and workplace issues.

	1994-B-1996:	In 1994-B, answer sheets were added for cigarettes and smokeless tobacco. In addition, a new "core" self-administered answer sheet was used to measure the use of each drug. The wording of questions was made to be consistent across different core answer sheets, and each new core answer sheet includes fewer questions than were used in the corresponding answer sheet of the old questionnaire.
Any Illicit Drug Other Than Marijuana	1995-1998:	This indicates use of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including phencyclidine [PCP] and lysergic acid diethylamide [LSD], heroin, or any prescription-type psychotherapeutic used nonmedically, regardless of marijuana use. Marijuana users who also have used any of the other listed drugs are included.
Base		The base number or actual number of respondents in each age group by demographic characteristic (i.e., unweighted *N*s) is found in Table 1.1 of this report. The percentages shown in the tables are based on weighted numbers of respondents.
Binge Use of Alcohol	1995-1998:	"Binge use of alcohol" was defined as drinking five or more drinks on the same occasion on at least 1 day in the past 30 days.
Black	1985-1998:	Black, not of Hispanic origin.
	SEE:	"Race/Ethnicity."
Booked for Breaking a Law	1995-1998:	"Booked" was defined as "taken into custody and processed by the police or by someone connected with the courts, even if you were then released."
Cigarettes	1994-B-1998:	Measures of use of cigarettes in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last smoked a cigarette?"
	1985-1994-A:	"When was the most recent time you smoked a cigarette?"
	1990:	In 1990, the option "(6) not sure" was deleted from the response set.

	1982:	Lifetime prevalence was based on the question, "About how old were you when you first tried a cigarette?" All respondents were asked about current use, which was defined as "smoked in the past 30 days."
	1979:	Lifetime prevalence was based on the question, "About how old were you when you first tried a cigarette?" Current use was defined as "smoked in past 30 days"; only those respondents who had smoked as many as five packs of cigarettes during their lifetime were asked about current use.
	1974-1977:	Lifetime prevalence was based on the question, "Have you ever smoked cigarettes?" Current use was defined as "smoked within past month"; all respondents were asked about current use.
	1972:	No data provided on lifetime prevalence. Current use was defined as smoked at "the present time"; all respondents were asked about current use.
	NOTE:	The 1979 questions on recency of cigarette use are not comparable with other years because a different operational definition was employed in 1979; that is, in 1979, only respondents who had smoked five or more packs in their lifetime were asked about recency of use.
	NOTE:	The 1994-B questions about tobacco use (i.e., cigarettes and smokeless tobacco) were asked using a self-administered answer sheet. In prior survey years, the questions about tobacco use were interviewer-administered.
	SEE:	"Cigars," "Current Smoker," "Prevalence," and "Recency of Use."
Cigars	1997, 1998:	Measures of use in the respondent's lifetime were developed from responses to the following questions: "Have you ever smoked a cigar, even one or two puffs?" "Have you smoked at least 50 cigars in your lifetime?" ". . .During the past 30 days, on how many days did you smoke a cigar?"
	SEE:	"Cigarettes," "Current Smoker," and "Drug Experiences."
Cocaine	1994-B-1998:	Measures of use of cocaine in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last used any form of cocaine?"

	1991-1994-A:	"When was the most recent time that you used cocaine in any form?"
	1998:	Feeder question: "The questions in this section are about cocaine, including all the different forms of cocaine, such as powder, 'crack,' free base, and coca paste."
	1991-1997:	Feeder question: "The [next questions] are . . ."
	1985-1990:	The question read, "When was the most recent time that you used cocaine?"
	SEE:	"Crack," "Prevalence," and "Recency of Use."
Crack	1994-B-1998:	Measures of use of crack cocaine in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last used 'crack'?"
	1988-1994-A:	"When was the most recent time you used the form of cocaine known as 'crack'?"
	1998:	Feeder question: "The next 6 questions refer only to 'crack,' that is, cocaine in rock or chunk form, and not the other forms of cocaine."
	1988-1997:	Feeder question: "The [next questions] . . ."
	SEE:	"Cocaine," "Prevalence," and "Recency of Use."
Criminal Behavior	1998:	Adult respondents were asked a series of four questions: "During the past 12 months, how many times have you" . . . "stolen or tried to steal anything worth more than $50?" "sold illegal drugs?" "carried a handgun?" and "attacked someone with the intent to seriously hurt them?" Adolescents aged 12 to 17 were asked the same four questions, as well as questions about two additional behaviors: . . ."gotten into a serious fight at school or work?" and "took part in a fight where a group of your friends fought against another group?" For both adults and adolescents, responses to each question were dichotomized into a yes/no variable. Summary measures also were created to indicate an affirmative response to any of the above questions.

	1997:	The youth checklist was replaced with a series of questions on youth experiences. Among the questions are two that address illegal activities. Adolescent respondents were asked: "During the past 12 months, how many times have you gotten into a gang fight?" and "During the past 12 months, how many times have you taken something from a store without paying for it?"
	1996, 1997:	The number of potentially illegal activities that adults might engage in was reduced to three: driving a vehicle while under the influence of a combination of alcohol and illegal drugs, driving a vehicle while under the influence of alcohol, and driving a vehicle while under the influence of illegal drugs.
	1995:	The series of questions on adult criminal behavior was reintroduced, with two items added to the list of activities that might be against the law: driving while under the influence of alcohol and driving while under the influence of illegal drugs.
	1994-B:	Questions on adult criminal behavior were dropped, and a youth checklist was added to the survey instrument. Three items in the checklist, which focuses on the thoughts, emotions, and activities of adolescents, address illegal activity. Youths were asked whether they "steal at home," "steal from places other than home," and "physically attack people."
	1992-1994-A:	Adults were asked a series of questions related to being arrested and booked for breaking a law. They also were asked to identify types of activities they had engaged in that might be illegal, such as selling illegal drugs, breaking into a house, and stealing money or property.
	SEE:	"Gang Fighting," "Stealing," and "Youth Experiences."
Current Drinker	1982-1998:	Reported use of alcohol during the month prior to the interview.
	1974-1979:	Drank in the past month.
	1972:	Drank in the past 7 days.
	SEE:	"Alcohol," "Prevalence," and "Recency of Use."
Current Employment		Employment status during the past week.
	SEE:	"Employment."

Current Smoker	1982-1998:	Reported use of cigarettes during the month prior to the interview.
	1979:	Smoked in past 30 days and have smoked as many as five packs of cigarettes during their lifetime.
	1974-1977:	Smoked within past month.
	1972:	Smoke at "the present time."
	NOTE:	The 1979 questions on cigarettes are not comparable with other years because a different operational definition was employed in 1979.
	NOTE:	The 1994-B, 1995, 1996, 1997, and 1998 questions about tobacco use (i.e., cigarettes and smokeless tobacco) were asked using a self-administered answer sheet. In prior survey years, the questions about tobacco use were interviewer-administered.
	SEE:	"Cigarettes," "Cigars," "Prevalence," and "Recency of Use."
Current Use		Any reported use of a specific drug in the past month.
	SEE:	"Prevalence," "Recency of Use," and "Use in the Past Month."
Drug Abuse Treatment	1998:	Two new questions were added to the survey. One focuses on whether respondents had received treatment or counseling for use of alcohol or any drug, not counting cigarettes, during the past 12 months. Another addresses the sources of payment for ANY treatment or counseling the respondent had received. The response set was expanded to include other payment options (a public assistance program other than Medicaid paid for last treatment; last treatment was ordered and paid for by the courts; last treatment was paid for by CHAMPUS or TRICARE, CHAMPVA, the VA, or by some other military health care) for the question asking respondents to indicate which sources paid for their last treatment or counseling.
	1997:	Question TX-8 was reworded to focus on the respondent's primary, not last, place of treatment, as follows: "What was the primary place where you received treatment the last time you started treatment for your alcohol or other drug use, not counting cigarettes?"

1994-B-1996: Respondents were asked to: "Please mark one box beside each type of treatment place [hospital overnight or inpatient; rehabilitation center overnight; rehabilitation center outpatient; mental health center outpatient, emergency room, private doctor's office, prison or jail, self-help group, other place] to indicate whether you have received treatment for your use of other drugs, not counting cigarettes and alcohol, in that type of facility during the past 12 months."

In 1994-B, 1995, and 1996, respondents also were asked: "What was the primary drug you received treatment or counseling for during the last time you were treated?"

1993, 1994-A: In 1993 and 1994-A, respondents also were asked: "How many times in your life have you received treatment or counseling for your use of any drug, not counting cigarettes or alcohol?" and "What was the primary drug you received treatment or counseling for during the last time you were treated?"

1991-1994-A: Respondents were asked: "During the past 12 months, have you received treatment for other drug use, not counting cigarettes or alcohol?"

This was the first in a series of eight questions about treatment for drug use. The remaining seven questions ask about treatment in various specific settings. The measure of drug abuse treatment is based only on responses to the first question stated above. This measure may include some people who had received treatment for conditions related to drug use in addition to those who had received treatment to stop drug use.

Drug Experiences

1998: The series of 23 drug-related questions introduced in 1997 was pared down to four: one on use of marijuana or hashish use and cocaine use and three on cigar smoking. The wording for these questions was retained from the 1997 survey.

1997: A new series of drug-related questions dealing with cigars, marijuana or hashish, and the different forms of cocaine (powder, "crack," free base, and coca paste) was introduced in 1997. Among the questions, 3 focus on cigar smoking, 10 address marijuana or hashish use, and 10 deal with cocaine use.

Education		This is the measure of educational attainment among respondents aged 18 years old or older. It contains the respondents' reports of their highest level of education completed: less than high school, high school graduate, some college, and college graduate. Persons who completed postgraduate work are classified as college graduates.
Employment		Respondents aged 18 or older were asked to look at a card and tell which statement best described their present work situation: "Working full-time, 35 hours or more a week"; "Working part-time, less than 35 hours a week"; "Have a job, but not at work because of extended illness, maternity leave, furlough, or strike"; "Have a job but not at work because it is seasonal work"; "Unemployed or laid off and looking for work"; "Unemployed or laid off and not looking for work"; "Full-time homemaker"; "In school only"; "Retired"; "Disabled for work"; and "Other (specify)."
	Full-time	"Full-time" in the tables includes both "working full-time" and "have a job but not at work."
	Part-time	"Part-time" in the tables refers exclusively to those reporting they worked part-time.
	Unemployed	"Unemployed" in the tables includes those giving either of the two "unemployed" answers.
	Other	"Other" includes all other responses, including being a student, a housewife, retired, disabled, or other miscellaneous work statuses.
Ethnicity	1985-1998:	Ethnicity is used to refer to the respondent's self-classification as to ethnic origin and identification. Tabular data were presented separately throughout the 1985, 1988, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, and 1998 Main Findings for the three largest ethnic categories: white, not Hispanic; black, not Hispanic; and Hispanic. Because the percentage of persons not classified in one of these three categories was so small and there were several different ethnic groups represented, the "others" were not shown separately in the tables, but were included in the calculation of prevalence rates for the total sample.
	SEE:	"Black," "Hispanic," "Race/Ethnicity," and "White."
Ever Used	SEE:	"Lifetime Prevalence."

Exposure to Drug Education and Prevention

1998: Adolescents were asked in 1998: "Please indicate if you have had any of these alcohol or drug education classes or experiences in school during the past 12 months . . .

Have you had a special class about drugs or alcohol?

Have you had films, lectures, discussions, or printed information about drugs or alcohol in one of your regular classes, such as health, physical education, etc.?

Have you had films, lectures, discussions, or printed information about drugs or alcohol *outside of* one of your regular classes, such as in special assemblies?"

Youths also were asked: "During the past 12 months, have you seen or heard any alcohol or drug prevention messages from sources outside school, such as in posters, pamphlets, and radio or TV ads?"

SEE: "Youth Experiences."

Family Income

1998: The question on family income was reworded in 1998 as follows: "Of these income groups, which best represents the total combined family income during 1997 (that is, yours and your [mother's/father's/stepmother's/stepfather's/wife's/husband's/etc.])? Include wages, salaries, and other items we just talked about. Income data is important in analyzing the health information we collect. For example, the information helps us to learn whether persons in one income group use certain types of medical care services or have conditions more or less often than those in another group."

1997: The question on family income was reworded in 1997 as follows: "Of these income groups, which best represents the total combined family income during the past 12 months (that is, yours and your [mother's/father's/stepmother's/stepfather's/wife's/husband's/etc.])? Include wages, salaries, and other items we just talked about. Income data is important in analyzing the health information we collect. For example, the information helps us to learn whether persons in one income group use certain types of medical care services or have conditions more or less often than those in another group."

1994-B-1996: A single question was asked: "Of these income groups, which best represents the total combined family income, during the past 12 months (that is, yours and your [mother's/father's/stepmother's/ stepfather's/wife's/husband's/etc.])? Include wages, salaries, and other items such as: money from all jobs, social security, retirement income, unemployment payments, public assistance, and so forth. Also include income from interest, dividends, net income from business, farm, or rent, and another money income you received."

1992-1994-A: A series of questions was asked to determine the amount of income the respondent and every member of his/her family received during the past month from a variety of sources, including employment, Social Security, Railroad Retirement, Supplemental Security Income, public assistance, AFDC, interest, dividends, rents, royalties, trusts, child support, and any other source. Imputations were made, monthly estimates were multiplied by 12, and variables were summed to obtain the total family income.

NOTE: For youths and those unable to respond to income questions, proxy responses were accepted from 1991 to 1998.

1990: A single question was asked: "The last few questions are about the total income during the past year for all members of your family who lived here then, from all sources. We would like for you to combine everyone's income--that is, yours (your [mother's/ father's stepmother's/stepfather's/wife's/husband's]). Include money from wages and salaries, social security, retirement income, unemployment payments, public assistance, and so forth. Also include income from interest, dividends, net income from business, farm, or rent, and any other money income received."

Respondents were handed a card with a series of response alternatives and asked to indicate the letter that best described their total family income from all sources. Respondents also were asked to indicate how much every member of their family received from each possible income source. Both the total categorical variable and each of the individual continuous income sources were compared and imputed to obtain the family income variable.

Gang Fighting

1998: The single question on gang fighting in the 1997 survey was combined into a series of items that asked youths about other criminal behaviors.

1997: Respondents were asked how many times during the past 12 months they had gotten into a gang fight. Response alternatives were (1) never, (2) 1 or 2 times, (3) 3 or 4 times, or (4) 5 or more times.

SEE: "Criminal Behavior," "Stealing," and "Youth Experiences."

Hallucinogens	1994-B-1998:	Measures of use of hallucinogens in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last used LSD, PCP, or any other hallucinogen?"
	1998:	Feeder question: "The questions in this section are about substances like LSD, peyote, mescaline, and PCP, which is also known as 'angel dust.' These drugs are called hallucinogens because they often cause people to feel that they are seeing or experiencing things that are not real."
	1994-A-1997:	Feeder question: "The [next questions] . . ."
	1985-1994-A:	Measures of use of hallucinogens in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "When was the most recent time you used LSD or PCP or another hallucinogen?" Specific types of hallucinogens came from the questions on the hallucinogens answer sheets, with "other" responses coded to specific types as appropriate (e.g., acid to LSD).
	1985-1994-A:	". . .[PCP or 'angel dust,' peyote, and mescaline]."
	1982:	". . .[LSD and other hallucinogens, such as PCP or phencyclidine, mescaline, peyote, psilocybin, DMT]." Data for PCP are included within general data on hallucinogens and also provided separately.
	1979:	". . .[LSD and other hallucinogens such as PCP or phencyclidine, mescaline, peyote, psilocybin, DMT]." Data for PCP are included within general data on hallucinogens and also provided separately.
	1976, 1977:	". . .[LSD and other hallucinogens like mescaline, peyote, psilocybin, and DMT]." Separate data are provided for PCP.
	1974:	". . .[LSD or other hallucinogens]."
	1972:	". . .[LSD or something like it, such as mescaline, psilocybin, MSA, STP]."

	NOTE:	In the 1985 Population Estimates report, PCP was included as a hallucinogen only if the respondent identified PCP specifically when answering the recency question for hallucinogens. This led to slight differences with the 1985 Main Findings, where PCP use was always included as a hallucinogen.
	SEE:	"Prevalence" and "Recency of Use."
Health Insurance Status	1998:	A series of questions was introduced in the survey's demographics section to identify whether respondents did not have health insurance coverage during the past 12 months, the length of time they were without coverage, the type of insurance they last held, and the reasons for not being covered.
	1991-1997:	A series of questions was asked to determine what kinds of insurance the respondent was covered under in the last full calendar month. Types of coverage asked about included Medicare, Medicaid, CHAMPUS, CHAMPVA, the VA, TRICARE, other military health care, private insurance obtained through a current or former employer, or by paying premiums directly to the health insurance company. An indicator variable was created that shows if the respondent was covered by any of these plans.
	NOTE:	For youths and those respondents who were unable to respond to the insurance questions, proxy responses were accepted from 1991 to 1998.
	1990:	A single question was asked: "We are interested in all kinds of health insurance plans, except those that only cover accidents. Are you now covered by a health insurance plan which pays any part of a hospital, doctor's, or surgeon's bill?" The response alternatives were: (1) yes and (2) no.
Heavy Use of Alcohol	1985-1998:	"Heavy use of alcohol" was defined as drinking five or more drinks on the same occasion (i.e., within a couple of hours) on 5 or more days in the past 30 days.
	SEE:	"Alcohol."
Heroin	1994-B-1998:	Measures of use of heroin in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last [used heroin]?"

	1976-1994-A:	"When was the most recent time you [used heroin]?"
	1993:	". . .[sniffed ("snorted") heroin]?"
	1972-1974:	". . .[tried heroin]?"
	SEE:	"Prevalence" and "Recency of Use."
Hispanic	1985-1998:	"Hispanic" was included as anyone of Hispanic origin (i.e., individuals from Puerto Rico, Mexico, Cuba, Central America, the Caribbean, South America, or other Hispanic countries). The individual may be racially white, black, or other.
	SEE:	"Black," "Race/Ethnicity," and "White."
Illicit Drugs	1979-1998:	Illicit drugs include marijuana, cocaine, inhalants, hallucinogens (including phencyclidine [PCP]), heroin, or nonmedical use of psychotherapeutics, which include stimulants, sedatives, tranquilizers, and analgesics. Illicit drug use has referred to use of any of these drugs. A composite measure, "any illicit drug use," was constructed from data for the 1979 and later surveys.
Income	SEE:	"Family Income."
Inhalants	1994-B-1998:	Measures of use of inhalants in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last used any inhalant for kicks or to get high?"
	1985-1994-A:	"When was the most recent time you used an inhalant; that is, sniffed or inhaled something to get high or for kicks?"
		Data on specific types of inhalants have come from the questions on the inhalants answer sheet with "other" responses coded to specific types as appropriate.
	NOTE:	Lighter gases (butane, propane) were added as a response option in 1991, 1992, 1993, 1994, and 1995.

1994-B-1998: Feeder question: "The questions in this section are about liquids, sprays, and gases that people sniff or inhale to get high or to make them feel good. Lighter fluid, glue, paint thinners, ether, 'poppers,' and certain aerosol sprays are examples of substances people breathe in or sniff for kicks or to get high. The questions use the term 'inhalants' to include all the things listed on Card 5, as well as any other substances that people sniff or inhale for kicks or to get high."

1991-1994-A: "These next questions are about inhalants that people sniff or breathe in, to get high or to make them feel good. I am referring to things like lighter fluids and gases, aerosol sprays like Pam, glue, amyl nitrate, 'poppers,' or locker room odorizers. The questions use the term 'inhalant' which refers to any and all of the items listed on this card."

1985-1990: ". . . [I am referring to things like lighter fluids, aerosol sprays . . .]"

1972-1979: Comparable questions on recency of use were used to derive prevalence rates for inhalants in 1972 through 1979. There were no questions on inhalant use in the 1982 survey.

SEE: "Prevalence" and "Recency of Use."

Large Metropolitan Area

1991-1998: In 1991 through 1998, large metropolitan areas included Metropolitan Statistical Areas (MSAs) with a 1990 population of 1,000,000 or more. Large metropolitan areas included cities and surrounding areas as defined by the U.S. Bureau of the Census. Other population density areas defined are "Small Metropolitan Area" and "Nonmetropolitan Area."

As of October 1991, the definition of the 1988 and 1990 large metropolitan areas was revised to match the 1991 definition. Estimates reported by population density for 1988 and 1990 since that revision may therefore differ from and are not strictly comparable to similarly labeled, earlier estimates.

1988, 1990: In 1988 and 1990, large metropolitan areas included Standard Metropolitan Statistical Areas (SMSAs) with a 1980 population of 1,000,000 or more.

1985: In 1985, large metropolitan areas included SMSAs with a 1980 population of 250,000 or more.

1982: Include SMSAs with a population of 1,000,000 or more in 1970.

	1979:	A county or group of contiguous counties that contains at least one city with at least 50,000 inhabitants or more, or "twin cities" with a minimum combined population of 50,000.
	1972-1977:	Includes the top 25 SMSAs as of 1970 according to the U.S. Bureau of the Census.
	SEE:	"Nonmetropolitan Area" and "Small Metropolitan Area."
Lifetime Frequency	1994-B-1998:	Respondents were asked: "Think about the entire time since you first used X drug. Altogether, on how many days in your life have you used X drug: more than 300 days, 101 to 300 days, 12 to 100 days, 3 to 11 days, 1 to 2 days?"
	1979-1994-A:	Respondents were asked: "About how many times in your life have you used X drug: 1-2 times, 3-5 times, 6-10 times, 11-49 times, 50-99 times, 100-199 times, 200 or more times, never?"
Lifetime Prevalence		The percentage who have "ever" used the drug regardless of the number of times it was used.
	SEE:	"Ever Used" and "Recency of Use."
Low Precision	1991-1998:	Prevalence estimates based on only a few respondents were not shown in the 1988, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, and 1998 Main Findings tables, but have been replaced with an asterisk (*) and noted as "low precision." These estimates have been omitted because one cannot place a high degree of confidence in their accuracy. In statistical terms, low precision estimates were those for which the natural log of the relative standard error (i.e., the ratio of the standard error to the prevalence estimate) was .175 or greater.
	1988, 1990:	In statistical terms, low precision estimates were those for which the relative standard error (i.e., the ratio of the standard error to the prevalence estimate) was .50 or greater.
	1972-1985:	An asterisk (*) was used in report tables to indicate prevalence rates of less than .5%.
Marijuana	1994-B-1998:	Measures of use of marijuana in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last used [marijuana or hashish]?"

	1985-1994-A:	"When was the most recent time you used [marijuana or hash]?"
	1982:	". . .[marijuana and hashish]."
	1979:	". . .[marijuana and (or) hashish]."
	1972-1977:	Data reported are for marijuana only.
	1994-B-1998:	Feeder question: "The next questions are about marijuana and hashish. Marijuana is also called pot or grass. Marijuana is usually smoked--either in cigarettes called joints, or in a pipe. It is sometimes cooked in food."
	NOTE:	Although the data in 1979 and 1982 pertain to use of either of these substances, experience in the earlier surveys indicated that most respondents who reported using hashish had also used marijuana.
	SEE:	"Prevalence" and "Recency of Use."
Needle Use	1995-1998:	Needle use was derived from specific questions about use of cocaine, heroin, or amphetamines with a needle and from general questions about needle use with other drugs.
	1994-B:	". . . cocaine, heroin, anabolic steroids, or amphetamines with a needle and from general questions about needle use with other drugs."
	1988-1994-A:	". . . cocaine, heroin, or amphetamines with a needle."
	NOTE:	In 1995, additional questions were asked about reusing needles, using bleach to clean needles before use, and where the needles were obtained.
	NOTE:	Estimates of needle use in 1990, 1991, 1992, 1993, 1994, and 1995 are not comparable to those published in the 1988 Main Findings. The 1990-1995 estimates were based on a more extensive set of questions about needle use available in the NHSDA for these years.
	NOTE:	In 1994-B and 1995, respondents were not asked to answer detailed questions about needle use if they reported never having injected a drug for nonmedical reasons.

Neighborhood

1998: Adults and adolescents were asked a series of four questions about their neighborhoods, including how long they have lived there, how many times they have moved in the past 5 years, and how neighbors would react to drug use in the neighborhood. Youths and adults also were asked: "How much do you agree or disagree with each of the following statements about your neighborhood?

There is a lot of crime in my neighborhood.
A lot of drug selling goes on in my neighborhood.
People in my neighborhood often help each other out.
Family violence is a big problem in my neighborhood.
Most people who live in my neighborhood are from the same racial or ethnic group.
There is conflict or tension between people from different racial or ethnic groups in my neighborhood.
There are lots of street fights in my neighborhood.
There are many empty or abandoned buildings in my neighborhood.
People in my neighborhood often visit in each other's homes.
There is a lot of graffiti in my neighborhood.
My neighborhood is very safe.
People move in and out of my neighborhood often."

Adults also were asked about the following: "People in my neighborhood share the same values."

SEE: "Social Environment" and "Youth Experiences."

Nonmedical Use of Any Psychotherapeutic

1998: The section of the interview instrument and the answer sheets dealing with nonmedical use of four classes of psychotherapeutics was introduced as follows:

Feeder question: "The next four answer sheets are about drugs that people are supposed to take only if they have a prescription from a doctor. For the questions on these next four answer sheets we are only interested in your use of a drug if: the drug was not prescribed for you, or if you took the drug only for the experience or feeling it caused."

1994-B-1997: Feeder question: "For the [answers] on these next four answer sheets . . ."

1991-1994-A: Feeder question: "The next questions will be about prescription-type drugs. There will be separate questions for sedatives, tranquilizers, stimulants, and analgesics.

"As you can see on this card, [sedatives include barbiturates, sleeping pills, and Seconal; sedatives are sometimes referred to as 'downers.'] Tranquilizers include antianxiety drugs like Librium, Valium, Ativan, and Meprobamate. [Stimulants include amphetamines and Preludin; stimulants are often called 'uppers' or 'speed.'] Analgesics include painkillers like Darvon, Demerol, Percodan, and Tylenol with codeine."

"Now, please read the information below the line on the card while I say it aloud. This is a very important point about the next set of questions. We are interested in the nonmedical use of these prescription-type drugs. Nonmedical use of these drugs is any use on your own, that is, either: without your own prescription from a doctor, or in greater amounts than prescribed, or more often than prescribed, or for kicks, to get high, to feel good, or curiosity about the pill's effect, or for any reasons other than a doctor said you should take them."

"Now, read with me below the line on the card because this is very important. We are interested in the nonmedical use of these prescription-type drugs. Nonmedical use of these drugs is any use on your own, that is, either: without a doctor's prescription, or in greater amounts, or more often, or for any reasons other than a doctor said that you should take them--such as for kicks, to get high, to feel good, or curiosity about the pill's effect."

NOTE: The pill card contains pictures and names of specific drugs within each psychotherapeutic category. For example, pictures and the names of Valium, Librium, and other tranquilizers are shown when the section on tranquilizers is introduced. Pill cards were introduced in 1972 for all but analgesics. A pill card for analgesics was introduced in 1979. Pill cards have been modified over the years to reflect changes in available psychotherapeutic drugs.

1985-1990: ". . . [sedatives include downers, barbiturates, and Seconal]."

". . . [Stimulants include uppers, amphetamines, speed, and Preludin]."

1982: Use of a pill or other drug(s) from any of the four psychotherapeutic drug categories in order to get high or to enjoy the feeling or just for kicks or curiosity or for any other nonmedical purpose. The four categories are sedatives, tranquilizers, stimulants, and analgesics.

1974-1979: A "yes" or "not sure" response to any one (or more) of the following three items: "(1) Did you ever take any of these kinds of pills just to see what it was like and how it would work? (2) Did you ever take any of these kinds of pills just to enjoy the feeling they give you? (3) Did you ever take any of the pills for some other nonmedical reason, and not because you needed it?"

1972: A "yes" response to any one (or more) of the following five items: "(1) Have you ever taken these pills to help you get along with your family or other people? (2) Have you ever taken any of these pills to help you accomplish something? (3) Did you ever take any of these kinds of pills just to see what it was like and how it would work? (4) Have you ever taken any of these pills before going out, so that you could enjoy yourself more with other people? (5) Did you ever take these kinds of pills just to enjoy the feeling they give you?"

NOTE: In 1977 only, questions about nonmedical experience were assigned to a random half of the households in which interviews were conducted.

SEE: "Analgesics," "Pill Cards," "Sedatives," "Stimulants," and "Tranquilizers."

Nonmetropolitan Area

1991-1998: Those areas of the United States that were not part of a Metropolitan Statistical Area (MSA) as of 1990, according to the U.S. Bureau of the Census. In general, these areas include small communities, rural nonfarm areas, and farm areas. Other population density areas defined are "Large Metropolitan Area" and "Small Metropolitan Area."

As of October 1991, the definition of the 1988 and 1990 nonmetropolitan areas was revised to match the 1991 definition. Estimates reported by population density for 1988 and 1990 since that revision may therefore differ from and are not strictly comparable to similarly labeled, earlier estimates.

1985-1990: Areas that were not part of a Standard Metropolitan Statistical Area (SMSA) as of 1980, according to the U.S. Bureau of the Census.

1972-1982: Nonmetropolitan generally includes smaller communities, rural nonfarm areas, and farm areas according to the standards set in 1970 U.S. Bureau of the Census classifications.

SEE: "Large Metropolitan Area" and "Small Metropolitan Area."

North Central		The States included are the East North Central States—Illinois, Indiana, Michigan, Ohio, and Wisconsin—and the West North Central States—Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota.
	SEE:	"Region."
Northeast		The States included are the New England States—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont—and the Middle Atlantic States—New Jersey, New York, Pennsylvania.
	SEE:	"Region."
Parenting Experiences	1998:	The 1998 interview instrument and answer sheets contain a new series of five questions on the experience of parents whose 12- to 17-year-old child also was selected to complete the survey. Questions focus on the parents' experience with the child's drug use, their discussions with their child about drugs, and their feelings about possible preventive measures.
PCP	1994-B-1998:	Measures of use of phencyclidine (PCP) in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last used LSD, PCP, or any other hallucinogen?"
	1982-1994-A:	"When was the most recent time you used PCP?"
	1979:	The following questions were used to generate lifetime and past-month PCP prevalence rates: "Have you ever used PCP or Angel Dust?" "In the past 30 days, did you use PCP or Angel Dust?"
	1976-1977:	A question on lifetime prevalence was included: "Have you ever used PCP or Angel Dust?"
	NOTE:	In the 1985 Main Findings, the measure of PCP differs slightly from that reported earlier in the 1985 Population Estimates report because of a difference in the treatment of missing data.
	SEE:	"Hallucinogens," "Prevalence," and "Recency of Use."

Perceived Risk/ Harmfulness	1997, 1998:	The list of activities in which people risk harming themselves was expanded to include trying and using lysergic acid diethylamide (LSD) and heroin. Respondents were asked to gauge the accessibility of LSD, in addition to the other drugs previously surveyed: marijuana, cocaine, "crack," and heroin. The following new questions were fielded about the respondent's risk-taking behaviors: "How often do you get a real kick out of doing things that are a little dangerous?" ". . .like to test yourself by doing something a little risky?" ". . .wear a seatbelt when you ride in the front passenger seat of a car?" ". . . wear a seatbelt when you drive a car?" Response alternatives for the non-driving questions were (1) never, (2) seldom, (3) sometimes, and (4) always. The response alternative, "I don't drive," was added to the question on driving.
	1985-1994-A, 1994-B, 1996:	Respondents were asked to assess the extent to which people risk harming themselves physically and in other ways when they use various illicit drugs, alcohol, and cigarettes, with various levels of frequency. These questions were first asked in 1985.
	NOTE:	The 1994-B and 1996 questionnaires substitute more specific language into the questions, such as the substitution of "How much do you think people risk harming themselves physically and in other ways when they use X drug [regularly]?" for "... [once for twice a week]?" and "How much do you think people risk harming themselves physically and in other ways when they use X drug [occasionally]?" for "...[once a month]?"
	1995:	Term not used.
Percentages		The percentages in the tables are based on weighted data, and they are presented to one decimal place. In this report, all the 1998 tables contain percentages based on weighted data.
	SEE:	"Rounding."

Pill Cards		The pill cards contain pictures and names of specific drugs within each psychotherapeutic category. For example, pictures and the names of Valium, Librium, and other tranquilizers are shown when the questionnaire section on tranquilizers is introduced. Pill cards were introduced in 1972 for sedatives, stimulants, and tranquilizers. A pill card for analgesics was introduced in 1979. Pill cards have been modified over the years to reflect changes in available psychotherapeutic drugs.
Population Density		See "Large Metropolitan Area," "Nonmetropolitan Area," and "Small Metropolitan Area."
Prevalence		General term used to describe the estimates for lifetime, past year, and past month use.
	SEE:	"Recency of Use."
Psychotherapeutic Drugs	1985-1998:	Psychotherapeutic drugs are generally prescription medications that also can be used illicitly to "get high" or for other mental effects. These include analgesics, sedatives, stimulants, and tranquilizers. Also included are such drugs as "speed" or "ice."
	NOTE:	In 1994-B, 1995, 1996, 1997, and 1998, "ice" is not included.
	SEE:	"Analgesics," "Nonmedical Use of Any Psychotherapeutic," "Sedatives," "Stimulants," and "Tranquilizers."
Race/Ethnicity	1985-1998:	Data were presented separately for whites, not of Hispanic origin; blacks, not of Hispanic origin; Hispanics; and others. Others include American Indians, Alaskan Natives (Aleuts, Eskimos), and Asian or Pacific Islanders (including Asian Indians).
	1972-1982:	In previous versions of this survey, the racial categories were "white" and "black and other races."
	SEE:	"Black," "Ethnicity," "Hispanic," and "White."
Recency of Use		The recency question for each drug was the source for the lifetime, past year, and past month prevalence rates.

1994-B-1998: The question was essentially the same for all classes of drugs. The question was: "How long has it been since you last used [drug name]?" For the four classes of psychotherapeutics, the phrase "that was not prescribed for you, or that you took only for the experience or feeling it caused" was added after the name of the drug.

The response alternatives were (1) within the past 30 days; (2) more than 30 days ago but within the past 12 months; (3) more than 12 months ago but within the past 3 years; (4) more than 3 years ago.

1993, 1994-A: The question was essentially the same for all classes of drugs. The question was: "When was the most recent time/that you used/you took/[drug name]?" For the four classes of psychotherapeutics, the phrase "for nonmedical reasons" was added after the name of the drug.

The response alternatives were the same for each drug with the exception of marijuana, cocaine, and inhalants. The response alternatives were (1) within the past month (30 days); (2) more than 1 month ago but less than 6 months ago; (3) 6 or more months ago but less than 1 year ago; (4) 1 or more years ago but less than 3 years ago; and (5) 3 or more years ago. For marijuana, inhalants, and cocaine, the first two response alternatives are (1) within the past week (7 days) and (2) more than 1 week ago but less than 1 month (30 days) ago.

The recency questions, however, were recoded to contain the best available information on each drug. (See Appendix C for more details.)

Region Region was grouped in this study into four categories: Northeast, North Central, South, and West. These regions are based on classifications developed by the U.S. Bureau of the Census. See the map on the following page for this division.

SEE: "North Central," "Northeast," "South," and "West" for listings of the States included in each region.

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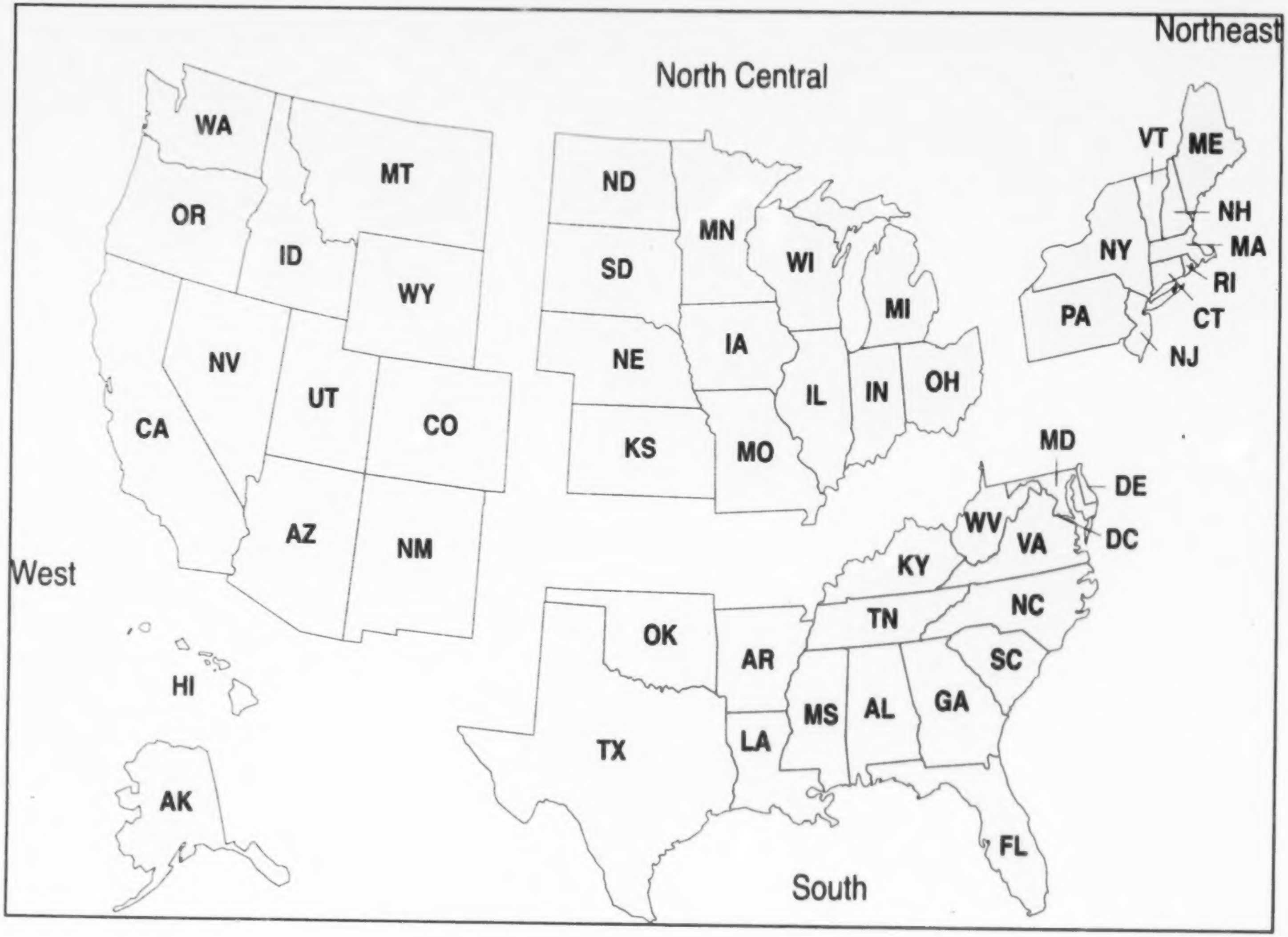
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Rounding

The decision rules for rounding of percentages were as follows. If the second number to the right of the decimal point was greater than or equal to 5, the first number to the right of the decimal point was rounded up to the next higher number. If the second number to the right of the decimal point was less than 5, the first number to the right of the decimal point remained the same. Thus, a prevalence rate of 16.55% would be rounded to 16.6%, while a rate of 16.44% would be rounded to 16.4%. Although the percentages in the 1997 tables generally total 100%, the use of rounding sometimes produces a total of slightly less than or more than 100%.

SEE: "Percentages."

School Dropout Status and Reasons for Leaving School

1998: For respondents aged 12 to 25, school dropout status was determined in 1998 from the highest level of education completed, current employment status, and the following question about current school enrollment: "Are you now enrolled in any kind of school?" Respondents aged 12 to 25 were classified as school dropouts if they (a) had less than 12 years of education (i.e., had not completed high school), (b) reported that they were not currently enrolled in school, and (c) did not report being students in the employment status question. However, respondents who were interviewed during summer months when school was not likely to be in session and reported that they were not currently enrolled in school were not classified as school dropouts.

Among respondents aged 12 to 25 who were classified as school dropouts, reasons for leaving school were determined from the following question: "Please look at this card and tell me which one of these reasons best describes why you left school?" Dropouts were catergorized into one of the following groups: (a) those who left school to get a job, start an apprenticeship, or learn a trade, and (b) those who left school for other or unknown reasons.

Sedatives

1994-B-1998: Measures of use of sedatives in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last used a sedative that was not prescribed for you, or that you took only for the experience or feeling it caused?"

Feeder question: "The questions in this section are about sedatives and barbiturates. These drugs are also called 'downers' and sleeping pills. People take these drugs to help them relax or to stay calm. We're interested only in use of prescription sedatives that were not prescribed for you, or that you took only for the experience or feeling they caused."

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1985-1994-A: Measures of use of sedatives in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "When was the most recent time you took any sedative for nonmedical reasons?"

Feeder question: "We'll start by talking about barbiturates and other sedatives. People sometimes take barbiturates and other sedatives to help them go to sleep or to help them stay calm during the day. We're interested in the use of sedatives, also called downers, on your own, or nonmedically."

1982: Barbiturates and other sedatives (often referred to as sleeping pills). Respondents were told that doctors sometimes prescribe these pills to help people go to sleep or to help them calm down during the day or for some other medical purpose.

1979: "These pills are barbiturates and other sedatives. Sometimes doctors prescribe these pills to calm people down during the day or to help them sleep at night. But besides medical use, people sometimes take these pills on their own, to help them relax, or just to feel good."

1974-1977: "Doctors sometimes prescribe these to help relax during the day and to get a better night's sleep. People also use these on their own, to help relax and just feel good. These are barbiturates or sedatives and are sometimes called 'downs' or 'downers.'"

1972: "Doctors prescribe these to help relax and to get a better night's sleep. People also use these on their own--to help relax and just feel good. These are barbiturates and are sometimes called 'downs' or 'downers.'"

NOTE: In 1977 only, questions about sedatives were assigned to a random half of the households in which interviews were conducted.

SEE: "Nonmedical Use of Any Psychotherapeutic," "Pill Cards," "Prevalence," and "Recency of Use."

Significance

In tables in which trends are shown (Chapter 2), the levels of significance for the changes between the two most recent survey years are noted as follows: .05, .01, and .001. A significance level of .05 is used in comparing two rates in the text for demographic subgroups of the most recent survey sample.

Small Metropolitan Area	1991-1998:	Metropolitan Statistical Areas (MSAs) with a 1990 population of 50,000 to 999,999 constituted small metropolitan areas. Other population density areas defined were "Large Metropolitan Area" and "Nonmetropolitan Area." As of October 1991, the definition of 1988 and 1990 small metropolitan areas was revised to match the 1991 definition. Estimates reported by population density for 1988 and 1990 since that revision may therefore differ from and are not strictly comparable to similarly labeled, earlier estimates.
	1988-1990:	Small metropolitan areas included Standard Metropolitan Statistical Areas (SMSAs) with a 1980 population of 50,000 to 999,999.
	1985:	In 1985, small metropolitan areas included SMSAs with a 1980 population of under 250,000.
	1979-1982:	Small metropolitan areas included SMSAs under 1,000,000 population in 1970.
	NOTE:	From 1972 to 1977, "Other Metropolitan" was used as the categorization rather than "Small Metropolitan."
	SEE:	"Large Metropolitan Area" and "Nonmetropolitan Area."
Smokeless Tobacco Use	1994-B-1998:	Measures of use of smokeless tobacco in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last used chewing tobacco or snuff?"
	1985-1994-A:	"When was the most recent time you used chewing tobacco or snuff or other smokeless tobacco?"
	NOTE:	The 1994-B and later questions about tobacco use (i.e., cigarettes and smokeless tobacco) were asked using a self-administered answer sheet. In prior survey years, the questions about tobacco use were interviewer-administered.
	SEE:	"Prevalence" and "Recency of Use."

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SMSA		Standard Metropolitan Statistical Area.
	SEE:	"Large Metropolitan Area," "Nonmetropolitan Area," and "Small Metropolitan Area."
Social Environment	1998:	A new series of 16 questions on the respondent's social environment was introduced in the 1998 interview instrument and the answer sheets. Questions ask respondents about their neighborhood, household occupants, spouse/partner, stress level, friends, criminal behavior, and drug use.
	SEE:	"Criminal Behavior" and "Neighborhood."
South		This Census classification contains the South Atlantic States—Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia; the East South Central States—Alabama, Kentucky, Mississippi, and Tennessee; and the West South Central States—Arkansas, Louisiana, Texas, and Oklahoma.
	SEE:	"Region."
Stealing	1998:	The single question on stealing in the 1997 survey was combined into a series of items that asked youths about other criminal behaviors.
	1997:	Respondents were asked how many times during the past 12 months they have taken something from a store without paying for it. Response alternatives were (1) never, (2) 1 or 2 times, (3) 3 or 4 times, or (4) 5 or more times.
	SEE:	"Criminal Behavior," "Gang Fighting," and "Youth Experiences."
Stimulants	1994-B-1998:	Measures of use of stimulants in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last used a stimulant that was not prescribed for you, or that you took only for the experience or feeling it caused?"

Feeder question: "This section is about the use of drugs like amphetamines that are known as stimulants or 'uppers.' People sometimes take these drugs to lose weight or to stay awake. The questions ask only about prescription stimulants. Do not include over-the-counter stimulants such as Dexatrim or No-Doz. We're interested only in use of prescription stimulants, uppers, and speed that were not prescribed for you, or that you took only for the experience or feeling they caused."

1985-1994-A: "When was the most recent time you took any amphetamine or other stimulant for nonmedical reasons?"

Feeder question: "The next questions are about the use of amphetamines and other stimulants. People sometimes take stimulants to help them lose weight or to help them stay awake. We're interested in nonmedical use—taking stimulants, also called uppers, on your own."

1982: Amphetamines or other stimulants. Respondents were told that these pills are sometimes used to help people lose weight and they are usually available only with a doctor's prescription.

1979: "These pills are amphetamines and other stimulants. Doctors sometimes prescribe these for losing weight. But besides medical uses, people sometimes take them on their own to make them feel more wide-awake, peppy, and alert."

1974-1977: "Doctors sometimes prescribe these for losing weight. But besides medical uses, people sometimes take them on their own to make them feel more wide-awake, peppy, and alert. They are sometimes called 'ups' or 'uppers,' 'speed,' or 'bennies.'"

1972: "Doctors prescribe these mostly for losing weight, and sometimes to give people more energy. People also use these on their own, just to feel good. These are amphetamines. They are sometimes called 'ups' or 'uppers,' 'speed,' or 'bennies.'"

NOTE: In 1977 only, questions about stimulants were assigned to a random half of the households in which interviews were conducted.

SEE: "Nonmedical Use of Any Psychotherapeutic," "Pill Cards," "Prevalence," and "Recency of Use."

Tobacco		See "Cigarettes," "Cigars," and "Smokeless Tobacco Use."
Total Family Income	SEE:	"Family Income."
Tranquilizers	1994-B-1998:	Measures of use of tranquilizers in the respondent's lifetime, the past year, and the past month were developed from responses to the question about recency of use: "How long has it been since you last used a tranquilizer that was not prescribed for you, or that you took only for the experience or feeling it caused?" Feeder question: "This section is about the use of tranquilizers. Tranquilizers are usually prescribed to relax people, to calm people down, or to relieve depression. Some people refer to tranquilizers as 'nerve pills' since they usually reduce anxiety and stress. We are interested only in use of prescription tranquilizers, that were not prescribed for you, or that you took only for the experience or feeling they caused."
	1985-1994-A:	"When was the most recent time you took any tranquilizer for nonmedical reasons?" Feeder question: "The next few questions are about the use of tranquilizers, on your own. People sometimes take tranquilizers to help them calm down or to relax their muscles or to relieve depression. They are sometimes called 'nerve pills.'"
	1982:	Respondents were told that the tranquilizer pill class includes pills that are usually available only with a doctor's prescription and are prescribed to help people calm down or to relax their muscles, etc.
	1979:	"These pills are tranquilizers. Doctors sometimes prescribe them to calm people down, quiet their nerves, or relax their muscles. But besides the medical uses, people sometimes take these pills on their own to help them relax, or just feel good."
	1974-1977:	"Doctors sometimes prescribe these to calm people down, or quiet their nerves, or relax their muscles. People also take them on their own to help them feel better. These are tranquilizers."
	1972:	"These help people to calm down, and to quiet their nerves. Doctors sometimes prescribe them. People also take them on their own to help them feel better. These are tranquilizers."
	NOTE:	In 1977 only, questions about tranquilizers were assigned to a random half of the households in which interviews were conducted.

	SEE:	"Nonmedical Use of Any Psychotherapeutic," "Pill Cards," "Prevalence," and "Recency of Use."
Treatment for Drug or Alcohol Abuse	1998:	Two options related to health insurance coverage were added to the response set for the question asking respondents why they did not obtain treatment or counseling for their drug or alcohol use during the past 12 months.
	1997:	Two questions were reworded to replace the phrase "received treatment or counseling" with the phrase "started into treatment or counseling."
	1994-B-1996:	"Have you ever received treatment or counseling for your use of alcohol or any drug not counting cigarettes?"
	1992-1994-A:	The measure of treatment for drug or alcohol abuse was developed from the responses to two questions, one asking whether the respondent had received treatment for drinking in the past 12 months and the other asking whether the respondent had received treatment for drug use in the past 12 months. Respondents who answered "yes" to either of those questions were counted as having received treatment for drug or alcohol abuse.
	SEE:	"Alcohol Abuse Treatment" and "Drug Abuse Treatment."
Use in the Past Month	1982-1998:	Respondent reported use within the month (30 days) prior to the interview date. Also referred to as "current use."
	1976-1979:	Reported use within "past week," "past month," or 1 or more days within the past 30 days.
	1974:	Had used within past month.
	1972:	Marijuana only—self-designated current users who reported use "once a month or less," as well as those who reported more frequent use. Other drugs—had used within past month.
	SEE:	"Recency of Use."

Use in the Past Year	1985-1998:	Respondent reported use within the past year prior to the interview date.
	1982:	Respondent reported use one or more times during the year prior to the interview date. Included persons reporting that their most recent use occurred in the past month or past year, as well as those persons who (though categorized as "not sure" of most recent use) indicated that their first use of the drug occurred during the past year.
	1979:	Respondent reported use one or more times during the year prior to the interview date.
	1977:	Respondent reported use one or more times within the past calendar year.
	1972-1976:	Respondent reported use within the past year.
	SEE:	"Recency of Use."
Weight		A weighted variable was used to adjust percentage estimates to represent the approximate age group by gender by race/ethnicity distribution in the U.S. civilian, noninstitutionalized population. (See Appendices B and D for details.)
Welfare Assistance	1998:	Respondents were asked whether they received "any time during 1997, even for one month, . . . any government payments, such as temporary assistance for needy families or public assistance, because of low income" and whether they received in 1997 "any other kind of welfare assistance, such as help with getting a job, placement in education or job training programs, or help with transportation, child care, or housing."
	1991-1997:	Respondents were asked whether they received "public assistance or welfare payments from the state or local welfare office."
	NOTE:	For youths and those respondents who were unable to respond to the insurance or income questions, proxy responses were accepted in 1991, 1992, 1993, 1994, and 1995.
West		This census classification includes the States of Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.
	SEE:	"Region."
White	1985-1998:	White, not of Hispanic origin.
	1982:	Those individuals who chose the category white or Hispanic as the category that best describes them.

	1979:	Those individuals who stated that their family origin is white or that they are of Spanish-American origin.
	1977:	Those individuals who stated that their family origin is white.
	1972-1976:	Those individuals whose racial background, according to interviewer observation, was determined to be white.
	SEE:	"Race/Ethnicity."
Youth Experiences	1998:	The youth experiences module was heavily revised after its introduction in 1997. Additional questions broaden the issues covered in 1997—school, parents, close friends, extracurricular activities, criminal behavior—and address new concerns, including the respondent's neighborhood, peers, friends, and stress level.
	1997:	A new series of questions was introduced in 1997 on the unique experiences of youths. Questions focus on educational level, extracurricular activities, jobs, parents, close friends, gang fighting, and stealing.
	SEE:	"Criminal Behavior," "Exposure to Drug Education and Prevention," "Gang Fighting," "Neighborhood," and "Stealing."

APPENDIX B

QUALITY OF THE DATA

Appendix B: Quality of the Data

All aspects of survey design and execution affect data quality. This appendix discusses the procedures used to ensure the quality of the data from the 1998 National Household Survey on Drug Abuse (NHSDA) and in this Main Findings report. Quality control efforts and results in the survey are discussed in terms of respondent cooperation, response rates for the various subsamples, interview and data keying verification, and data editing. Variable recodes, assessment of missing data on key drug use variables, and procedures for dealing with missing data in the analyses are considered where they affect the analytical results and their presentation in the 1998 Main Findings. All phases of survey design, sample selection, data collection, and data preparation were conducted by Research Triangle Institute (RTI) under the direction of the Office of Applied Studies (OAS) of the Substance Abuse and Mental Health Services Administration (SAMHSA).

Field Data Collection Period and Data Preparation

Data Collection Instruments. The 1998 NHSDA fielded a questionnaire (see Appendix E) that was similar to the data collection instruments and methodology used in the 1997 data collection. The mental health module was removed for 1998 as was the section on workplace issues. New modules were added, including sections on the adult social environment and parenting experiences, and significant changes were made to the questions on youth experiences. The 1998 questionnaire, answer sheets, and show cards were translated into Spanish.

The 1998 NHSDA retained the quarterly data collection schedule that had been used for the NHSDA since 1992. Year-round data collection provides for a more immediate and continuous picture of the Nation's drug problem and eliminates seasonal effects on NHSDA estimates.

Interviewer Recruitment, Selection, and Training. Field interviewers for the 1998 NHSDA were selected from prior NHSDAs, especially the 1997 survey, the contractor's national interviewer file, other survey organizations, and local government employment agencies. Our target goal was for the 15 field supervisors to hire 266 field interviewers plus 20 traveling field interviewers by December 22, 1997. Initially, 269 field interviewers were hired, and 266 successfully completed training and began working. Of the 269 field interviewers, 181 were veterans who completed home study training activities; the others were new-to-project staff who went through an in-person training session. The demographic composition of the interviewing staff at the beginning of the first quarter included 26 (10%) who were black and 52 (20%) who were Hispanic. At the beginning of the final quarter, there were 301 interviewers working. Of those, 35 (12%) were black and 57 (19%) were Hispanic. A total of 63 (21%) of those recruited were bilingual in Spanish and English. Throughout the entire survey period, a total of 413 interviewers were trained. Of these, 123 attrited during the year, for a total attrition rate of 29.8%.

As in the 1996 NHSDA, which used nearly the same segments surveyed in the 1995 NHSDA, the 1998 NHSDA revisited the 1997 NHSDA sample. Approximately 76% of the 1998 sample, or 2,030 of the 2,670 segments, consisted of the unused units of the pairwise segment sample selected at the same time that the 1997 segment samples were drawn. The remaining 24%, or 640 segments, were new segments either replacing 1997's segments with inadequate dwelling unit sample sizes or segments representing newly defined noncertainty primary sampling units (PSUs). A combination of the pairwise sampling feature and the overlap feature helped reduce the sampling variance and minimized field costs.

Territorial assignments were allocated roughly equally to the 15 field supervisors. The assignments were based primarily on geographical location and previous territorial field assignments. Before the interviewing portion of data collection began, the field supervisors recruited the interviewer staff, prepared and monitored interviewers' assignments, and assisted with interviewer training on data collection methods.

All interviewers working on the 1998 NHSDA participated in a comprehensive training program. Veteran interviewers (those 181 interviewers who had worked on the 1997 NHSDA and were certified to work on the 1998 NHSDA) were trained using an extensive home study program. The home study package consisted of a copy of the *1998 NHSDA Field Interviewer Manual*, a memo from the national field director reviewing the few study changes from 1997 to 1998, and a workbook with questions from the interviewer manual, screening exercises, and a copy of the questionnaire and answer sheets. In addition to answering the questions in the workbook, veteran interviewers also had to complete a read-through of the questionnaire with their field supervisors.

New interviewer staff trained in January attended an in-person training session in Research Triangle Park, North Carolina; Los Angeles, California; or Houston, Texas. For those interviewers who were unable to attend the early January training session, a makeup session was conducted in late January. Additional replacement training sessions to compensate for interviewer attrition were held in February, March, May, June, August, September, and November 1998. Those trained at later makeup and replacement sessions were trained in Research Triangle Park, North Carolina; Los Angeles, California; or Torrance, California.

Prior to attending the session, each trainee received the following items:

- a copy of the *1998 NHSDA Field Interviewer Manual*,
- an *RTI General Interviewer's Manual*,
- an audiotape on the pronunciations of drug-related terms,
- a memo from the national field director, and
- home study exercises taken from the *1998 NHSDA Field Interviewer Manual*.

The *1998 NHSDA Field Interviewer Manual* provided detailed, study-specific descriptions of all the procedures that the interviewers were to follow during the data collection period. This manual was designed to serve as both a training manual and a reference source during the fieldwork.

The in-person training session consisted of 4 days of project-specific training. Bilingual staff participated in an extra half-day of training to familiarize them with administering the Spanish-language version of the data collection instrument. Field interviewers who were new to survey research arrived at training 1 day early to attend a general orientation on field interviewing. All sessions were conducted by the contractor's senior survey operations staff, assisted by the regional supervisors and field supervisors for the area who had received training earlier for their roles in training the field interviewers.

Fieldwork—Preliminary Activities. Before the initial fieldwork of counting and listing segments began, segment kits were prepared and mailed to listers for each of the new segments that required listing. For the 1998 NHSDA, 640 (24%) of the 2,670 segments required counting and listing because the majority of segments selected were re-sampled from those used in the 1997 NHSDA. Seventy-nine listers were hired and certified using the procedures implemented for the 1997 NHSDA.

Upon receiving their counting and listing assignments, interviewers listed the address or description of up to 400 dwelling units in each segment, then returned the segment kit to the contractor. Sample dwelling units (SDUs) were selected from segment listings using a routine designed by the sampling statisticians. A label containing study identification information and housing unit address was printed for each SDU and attached to a screening form. On the form was printed the different person-selection procedures the interviewer was to follow, depending on the type of SDU and ages of the residents. The screening forms were sent to the field supervisors for assignment to field interviewers.

Field interviewers made initial contact with SDUs by mailing an introductory letter from the study director to each residence 1 week before the first visit. The letter provided a brief description of the study and its methods, informed the recipient that participation was voluntary, and assured confidentiality.

Fieldwork—Interviewing. Interviewers had received training in introducing themselves and the study to SDU residents, answering questions, and soliciting cooperation. They also had received training in completing the screening form, including rostering household members aged 12 or older, and the person-selection procedures to select respondents randomly from the age-race/ethnicity strata appropriate for the dwelling unit. When the sampled respondent was available and cooperative, the interview was conducted immediately following screening and person selection. Interviewers were required to make at least four callbacks to an SDU at different times of day and different days of the week to complete screening and interviewing. In reality, however, unlimited callbacks were made as long as the field supervisor believed there was a reasonable chance the screening or the interview could be completed. In particular, repeated visits were made to interview sampled respondents. Similarly, initial refusals were not simply accepted but were assigned to other interviewers and sometimes even to the field supervisors for conversion. When these efforts were unsuccessful, the field supervisor had the option of sending a refusal letter or unable to contact letter to help convert the reluctant respondent.

After each completed interview, the respondent was asked to complete a verification form by entering his or her address and telephone number so that the field interviewer's work could be verified. This form was sealed in a preaddressed envelope separate from the envelope used for mailing the interview data collection forms to the contractor. Upon receipt by the contractor, these forms were keyed into a database. A random sample of the verification forms in this database was selected for telephone verification. When a selected verification form did not have a telephone number but did have an address, verification by mail was attempted. Discrepancies were identified, and the appropriate field supervisor was notified by electronic mail for resolution; all discrepancies were satisfactorily resolved. Verification interviews, follow-up letters, and records of any discrepancies and their resolution were filed by case ID number in a 1998 NHSDA verification file.

Imputations. The questionnaire items on the 1998 NHSDA screening and interview instrument that were used during the imputation procedures (i.e., completeness and replacement) were nearly identical to the questions used during the 1997 NHSDA imputation procedures. As in the 1997 NHSDA, a State-supplemental sample large enough to provide reliable estimates for Arizona and California was drawn for quarters 1 through 4 of the 1998 NHSDA; thus, a State (Arizona, California, and the remainder of the United States) indicator was used among the sorting and explanatory variables during some of the statistical imputation process. Population estimates were based on either the total sample or all cases in a subgroup, including where missing data for some recency-of-use and frequency-of-use variables were replaced with logically or statistically imputed (i.e., replaced) values. The interview classification "minimally complete" (a status necessary for a case to be included in the database) required that data on the recency of use of alcohol, marijuana, and cocaine be present.

Logical Imputations. To determine case completeness, an editing procedure was employed to replace missing data for those substances based on information supplied by the respondent elsewhere in the questionnaire. After this editing, case completeness was determined. When necessary, additional logical imputation also was done to replace other inconsistent, missing, or otherwise faulty data.

Statistical Imputations. For selected variables of interest, which still had missing values after the application of logical imputation, statistical imputation was used to replace missing responses with statistically imputed responses. Two types of statistical imputations were used. The technique of sequential hot-deck imputation involves the replacement of a missing value by the last encountered nonmissing response from another respondent who is "similar" and has complete data. Regression-based models also were used to determine replacement values for some variables. In general, analysts of NHSDA data are advised to use the statistically imputed data when creating tabular summaries and other descriptive analyses for population subgroups of interest for trend data analysis. When forming population estimates, statistical imputations often will reduce the bias associated with the estimate. For example, data with missing responses that are not statistically imputed will produce estimates of totals that will necessarily be underestimated and consequently biased because the total population will not be accounted for in the estimates. Also, the bias in per-unit type estimates, such as the estimate of a population mean, can be reduced with statistical imputation, particularly when the imputation procedure accounts for differential nonresponse patterns and differential reporting patterns among subgroups of the population. Although the statistically imputed data will not totally eliminate the bias associated with estimates produced from these data, the imputation should help reduce the bias depending on the type of analyses.

For analyses of relationships involving multiple data items, use of the variables revised by statistical imputation may not be appropriate. Usually, these analyses span data items that were not jointly used in defining the imputation procedure. In this situation, use of nonimputed data items may be best. In summary, statistically imputed responses were created for the following variables: the drug recency-of-use items, the past year frequency-of-use items, cigar use, age, race, gender, the Hispanic origin items, marital status, work status, education, high school graduate indicator, total and private health insurance, and the personal earnings and family income items.

In the 1998 NHSDA, imputations for all imputation-revised variables (except for the personal earnings and family income variables and frequency of use for alcohol, marijuana, and cocaine) were constructed using hot-deck imputation. The first step in this procedure was to sort the data file with a progressive sorting series, using data on recency of use of alcohol, marijuana, cocaine, age, gender, Hispanic origin, race, or State (Arizona, California, and the remainder of the United States). The second step of the hot-deck imputation procedure was to replace the missing item(s) on a particular record with the last encountered nonmissing response from an adjacent record on the sorted database. The hot-deck imputation procedure was appropriate for the recency-of-use and demographic variables because these variables' levels of item nonresponse were low.

Missing data for all personal and family income variables, and the frequency of use for alcohol, cocaine, and marijuana were statistically imputed using a regression-based method of imputation. This imputation procedure involved estimating a polytomous logistic model using item respondent data. After the model parameters were estimated, the resulting model was used to predict a categorical response for each item nonrespondent. Demographic variables, including State, served as the explanatory variables in the income models. In addition to these variables, the frequency-of-use models included recency of use (four levels) of alcohol, marijuana, and cocaine. Because the income and frequency-of-use variables have a large number of response categories, the regression-based model method was used to first impute collapsed response categories, then the collapsed categories were expanded to more levels using the hot-deck method. The model-based imputation procedure was appropriate for these variables for two reasons: (a) the level of nonresponse to these questions was larger than observed for the recency-of-use and demographic items; and (b) the model-based imputation procedure allows a greater number of statistically significant explanatory variables to affect an imputed response than is possible with the hot-deck method.

Evaluation of the 1998 NHSDA

In the tables and discussion that follow, an assessment of the 1998 NHSDA is presented in terms of screening and interviewing response rates (including numbers of interviews targeted and achieved), interviewers' perceptions of respondents' cooperation and comprehension, and number of visits necessary to achieve the interviews.

Screening and Interviewing Response Rates. Table B.1 presents the screening response results for the total United States, the Arizona/California supplemental strata, and the total United States, excluding the Arizona/California supplemental strata. The overall completed screening response rate for eligible cases was 93.0%. Screenings not completed are identified by reason. Refusals (3.3%) and no one at home (2.0%) resulted in the highest proportions of incomplete screenings.

Interview response rates are presented in Table B.2 by age group and race/ethnicity. The interview response rate was 77.0% across the sample of 33,128 eligible housing unit members. Response rates tended to be inversely related to age, with the highest response rate (81.8%) among 12- to 17-year-old sample members. Conversely, refusal rates rose slightly with age. Hispanics had higher response rates than did non-Hispanic sample members. The inability to find the selected person at home was lowest among whites. Response rates by race/ethnicity ranged from 74.1% for whites to 80.5% for Hispanics.

Table B.3 presents interview response rates by age group and region, Table B.4 by race/ethnicity and region, and Table B.5 by race/ethnicity and population density. Response rates varied by region and were generally higher in the South and North Central, and lower in the West and Northeast. Overall, the lowest response rates were found among non-Hispanic whites living in the Northeast (67.9%) and among non-Hispanic whites aged 35 or older living in the West (69.7%). The highest response rates were found among blacks not living in metropolitan statistical areas (i.e., non-MSAs) (89.9%), 12 to 17 year olds in the South (86.7%), and Hispanics living in the South (85.4%).

Number of Visits and Response Rates. Table B.6 shows the results of initial and repeated visits to SDUs to complete a household screening and to obtain an interview. Close to half (45.3%) of all interviews were completed on the initial visit, and more than 75% of all interviews had been completed after three visits. Up to 9 callbacks yielded still substantial increases in the number of interviews completed (95.6%), but 10 or more callbacks resulted in only slight improvements in the overall response rate (97.1%).

Privacy and Respondent Cooperation and Comprehension. Based on interviewers' assessments, most of the interviews were conducted in complete privacy, as shown in Table B.7. At least two-thirds of the interviews in each racial/ethnic group were conducted in complete privacy. Interviews with whites were more likely to be completely private than those with Hispanics or blacks. The youngest age group, 12 to 17 year olds, was the most likely to have another person constantly present during an interview (6.3% to 9.2%).

The vast majority of the respondents were rated as very cooperative by interviewers, as shown in Table B.8. At least 96% of respondents in each racial/ethnic category were reported as being very or fairly cooperative, with those aged 12 to 17 having the highest rate of cooperation over all other age groups. Most respondents—more than 89% of each racial/ethnic group—were perceived as experiencing only a little or no difficulty in level of understanding during the interview.

Table B.1 Number and Percentage of Sampled Housing Units Screened, 1998

	U.S., Excluding AZ/CA		AZ/CA		Total U.S.	
Screening Results	*n*	Percentage	*n*	Percentage	*n*	Percentage
Total Sample	63,138	100.0	31,585	100.0	94,723	100.0
Ineligible cases	9,831	15.6	4,026	12.8	13,857	14.6
Eligible cases	53,307	84.4	27,559	87.3	80,866	85.4
Ineligible Cases	9,831	100.0	4,026	100.0	13,857	100.0
Vacant	7,105	72.3	2,789	69.3	9,894	71.4
Not primary residence	1,202	12.2	612	15.2	1,814	13.1
Not a dwelling unit	1,412	14.4	484	12.0	1,896	13.7
Other ineligible	112	1.1	141	3.5	253	1.8
Eligible Cases	53,307	100.0	27,559	100.0	80,866	100.0
Screening completed	49,793	93.4	25,374	92.1	75,167	93.0
Selected for interview	16,141	30.3	8,825	32.0	24,966	30.9
Not selected for interview	33,652	63.1	16,549	60.0	50,201	62.1
Screening not completed	3,514	6.6	2,185	7.9	5,699	7.0
No one at home	1,077	2.0	506	1.8	1,583	2.0
Respondent unavailable	138	0.3	31	0.1	169	0.2
Physical/mental incompetent	59	0.1	19	0.1	78	0.1
Language barrier—Hispanic	50	0.1	3	0.0	53	0.1
Language barrier—other	95	0.2	63	0.2	158	0.2
Refusal	1,560	2.9	1,087	3.9	2,647	3.3
Other, eligible	32	0.1	8	0.0	40	0.0
Other, access denied	246	0.5	195	0.7	441	0.5
Segment not accessible	0	0.0	132	0.5	132	0.2
Screener not returned	219	0.4	129	0.5	348	0.4
Fraudulent case	38	0.1	12	0.0	50	0.1

AZ = Arizona; CA = California.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table B.2 Interview Results, by Age Group and Race/Ethnicity, 1998

	Age Group in Years									
	12-17		18-25		26-34		≥35		Total	
Race/Ethnicity	*n*	Percent-age	*n*	Percent-age	*n*	Percent-age	*n*	Percent-age	*n*	Percent-age
Hispanic										
Eligible HU members	2,166	100.0	2,780	100.0	1,803	100.0	1,688	100.0	8,437	100.0
Interview completed	1,869	86.3	2,187	78.7	1,432	79.4	1,307	77.4	6,795	80.5
No respondent home[1]	90	4.2	259	9.3	142	7.9	134	7.9	625	7.4
Refusal	53	2.4	191	6.9	140	7.8	156	9.2	540	6.4
Parental refusal[2]	113	5.2	N/A	N/A	N/A	N/A	N/A	N/A	113	1.3
Other	41	1.9	143	5.1	89	4.9	91	5.4	364	4.3
Black, Non-Hispanic										
Eligible HU members	1,629	100.0	2,253	100.0	1,396	100.0	2,020	100.0	7,298	100.0
Interview completed	1,374	84.3	1,798	79.8	1,053	75.4	1,590	78.7	5,815	79.7
No respondent home[1]	82	5.0	227	10.1	156	11.2	110	5.4	575	7.9
Refusal	37	2.3	144	6.4	137	9.8	221	10.9	539	7.4
Parental refusal[2]	85	5.2	N/A	N/A	N/A	N/A	N/A	N/A	85	1.2
Other	51	3.1	84	3.7	50	3.6	99	4.9	284	3.9
White, Non-Hispanic										
Eligible HU members	4,487	100.0	4,580	100.0	2,817	100.0	5,509	100.0	17,393	100.0
Interview completed	3,535	78.8	3,333	72.8	2,052	72.8	3,970	72.1	12,890	74.1
No respondent home[1]	185	4.1	415	9.1	220	7.8	280	5.1	1,100	6.3
Refusal	191	4.3	637	13.9	450	16.0	899	16.3	2,177	12.5
Parental refusal[2]	483	10.8	N/A	N/A	N/A	N/A	N/A	N/A	483	2.8
Other	93	2.1	195	4.3	95	3.4	360	6.5	743	4.3
Total										
Eligible HU members	8,282	100.0	9,613	100.0	6,016	100.0	9,217	100.0	33,128	100.0
Interview completed	6,778	81.8	7,318	76.1	4,537	75.4	6,867	74.5	25,500	77.0
No respondent home[1]	357	4.3	901	9.4	518	8.6	524	5.7	2,300	6.9
Refusal	281	3.4	972	10.1	727	12.1	1,276	13.8	3,256	9.8
Parental refusal[2]	681	8.2	N/A	N/A	N/A	N/A	N/A	N/A	681	2.1
Other	185	2.2	422	4.4	234	3.9	550	6.0	1,391	4.2

N/A: Not applicable

HU = housing unit

[1] Results include interviewer codes for no one at home after repeated visits and codes for resoondent unavailable after repeated visits.

[2] Parental refusals were assigned to persons aged 12 to 17 only.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table B.3 Interview Results, by Age Group and Region, 1998

	Age Group in Years									
	12-17		18-25		26-34		≥35		Total	
Region	*n*	Percentage	*n*	Percentage	*n*	Percentage	*n*	Percentage	*n*	Percentage
Northeast										
Eligible HU members	929	100.0	1,048	100.0	960	100.0	1,418	100.0	4,355	100.0
Interview completed	709	76.3	739	70.5	673	70.1	1,000	70.5	3,121	71.7
No respondent home[1]	76	8.2	159	15.2	133	13.9	130	9.2	498	11.4
Refusal	44	4.7	98	9.4	121	12.6	183	12.9	446	10.2
Parental refusal[2]	73	7.9	N/A	N/A	N/A	N/A	N/A	N/A	73	1.7
Other	27	2.9	52	5.0	33	3.4	105	7.4	217	5.0
North Central										
Eligible HU members	1,078	100.0	1,185	100.0	975	100.0	1,492	100.0	4,730	100.0
Interview completed	872	80.9	930	78.5	754	77.3	1,124	75.3	3,680	77.8
No respondent home[1]	52	4.8	112	9.5	71	7.3	85	5.7	320	6.8
Refusal	43	4.0	99	8.4	111	11.4	200	13.4	453	9.6
Parental refusal[2]	91	8.4	N/A	N/A	N/A	N/A	N/A	N/A	91	1.9
Other	20	1.9	44	3.7	39	4.0	83	5.6	186	3.9
South										
Eligible HU members	2,304	100.0	2,767	100.0	2,068	100.0	3,196	100.0	10,355	100.0
Interview completed	1,997	86.7	2,298	83.1	1,633	79.0	2,576	80.6	8,504	82.3
No respondent home[1]	80	3.5	205	7.4	161	7.8	150	4.7	596	5.8
Refusal	56	2.4	179	6.5	195	9.4	319	10.0	749	7.2
Parental refusal[2]	117	5.1	N/A	N/A	N/A	N/A	N/A	N/A	117	1.1
Other	54	2.3	85	3.1	79	3.8	151	4.7	369	3.6
West										
Eligible HU members	3,971	100.0	4,613	100.0	2,013	100.0	3,111	100.0	13,708	100.0
Interview completed	3,200	80.6	3,351	72.6	1,477	73.4	2,167	69.7	10,195	74.4
No respondent home[1]	149	3.8	425	9.2	153	7.6	159	5.1	886	6.5
Refusal	138	3.5	596	12.9	300	14.9	574	18.5	1,608	11.7
Parental refusal[2]	400	10.1	N/A	N/A	N/A	N/A	N/A	N/A	400	2.9
Other	84	2.1	241	5.2	83	4.1	211	6.8	619	4.5
Total										
Eligible HU members	8,282	100.0	9,613	100.0	6,016	100.0	9,217	100.0	33,128	100.0
Interview completed	6,778	81.8	7,318	76.1	4,537	75.4	6,867	74.5	25,500	77.0
No respondent home[1]	357	4.3	901	9.4	518	8.6	524	5.7	2,300	6.9
Refusal	281	3.4	972	10.1	727	12.1	1,276	13.8	3,256	9.8
Parental refusal[2]	681	8.2	N/A	N/A	N/A	N/A	N/A	N/A	681	2.1
Other	185	2.2	422	4.4	234	3.9	550	6.0	1,391	4.2

N/A: Not applicable.

HU = housing unit.

[1] Results include interviewer codes for no one at home after repeated visits and codes for respondent unavailable after repeated visits.
[2] Parental refusals were assigned to persons aged 12 to 17 only.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table B.4 Interview Results, by Race/Ethnicity and Region, 1998

Region	Hispanic *n*	Hispanic Percentage	Black, Non-Hispanic *n*	Black, Non-Hispanic Percentage	White, Non-Hispanic *n*	White, Non-Hispanic Percentage	Total *n*	Total Percentage
Northeast								
Eligible HU members	890	100.0	1,205	100.0	2,260	100.0	4,355	100.0
Interview completed	692	77.8	894	74.2	1,535	67.9	3,121	71.7
No respondent home[1]	84	9.4	177	14.7	237	10.5	498	11.4
Refusal	39	4.4	77	6.4	330	14.6	446	10.2
Parental refusal[2]	13	1.5	15	1.2	45	2.0	73	1.7
Other	62	7.0	42	3.5	113	5.0	217	5.0
North Central								
Eligible HU members	431	100.0	1,239	100.0	3,060	100.0	4,730	100.0
Interview completed	340	78.9	964	77.8	2,376	77.6	3,680	77.8
No respondent home[1]	39	9.0	105	8.5	176	5.8	320	6.8
Refusal	21	4.9	97	7.8	335	10.9	453	9.6
Parental refusal[2]	2	0.5	21	1.7	68	2.2	91	1.9
Other	29	6.7	52	4.2	105	3.4	186	3.9
South								
Eligible HU members	2,194	100.0	4,319	100.0	3,822	100.0	10,335	100.0
Interview completed	1,874	85.4	3,573	82.7	3,057	80.0	8,504	82.3
No respondent home[1]	148	6.7	254	5.9	194	5.1	596	5.8
Refusal	92	4.2	285	6.6	372	9.7	749	7.2
Parental refusal[2]	8	0.4	43	1.0	66	1.7	117	1.1
Other	72	3.3	164	3.8	133	3.5	369	3.6
West								
Eligible HU members	4,922	100.0	535	100.0	8,251	100.0	13,708	100.0
Interview completed	3,889	79.0	384	71.8	5,922	71.8	10,195	74.4
No respondent home[1]	354	7.2	39	7.3	493	6.0	886	6.5
Refusal	388	7.9	80	15.0	1,140	13.8	1,608	11.7
Parental refusal[2]	90	1.8	6	1.1	304	3.7	400	2.9
Other	201	4.1	26	4.9	392	4.8	619	4.5
Total								
Eligible HU members	8,437	100.0	7,298	100.0	17,393	100.0	33,128	100.0
Interview completed	6,795	80.5	5,815	79.7	12,890	74.1	25,500	77.0
No respondent home[1]	625	7.4	575	7.9	1,100	6.3	2,300	6.9
Refusal	540	6.4	539	7.4	2,177	12.5	3,256	9.8
Parental refusal[2]	113	1.3	85	1.2	483	2.8	681	2.1
Other	364	4.3	284	3.9	743	4.3	1,391	4.2

HU = housing unit.

[1] Results include interviewer codes for no one at home after repeated visits and codes for respondent unavailable after repeated visits.

[2] Parental refusals were assigned to persons aged 12 to 17 only.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table B.5 Interview Results, by Race/Ethnicity and Population Density, 1998

Population Density	Hispanic		Black, Non-Hispanic		White, Non-Hispanic		Total	
	n	Percentage	*n*	Percentage	*n*	Percentage	*n*	Percentage
1,000,000+								
Eligible HU members	5,642	100.0	3,744	100.0	7,915	100.0	17,301	100.0
Interview completed	4,561	80.8	2,819	75.3	5,606	70.8	12,986	75.1
No respondent home[1]	439	7.8	377	10.1	570	7.2	1,386	8.0
Refusal	362	6.4	349	9.3	1,071	13.5	1,782	10.3
Parental refusal[2]	65	1.2	46	1.2	255	3.2	366	2.1
Other	215	3.8	153	4.1	413	5.2	781	4.5
50,000 to 999,999								
Eligible HU members	2,081	100.0	2,360	100.0	5,399	100.0	9,840	100.0
Interview completed	1,679	80.7	1,923	81.5	4,028	74.6	7,630	77.5
No respondent home[1]	148	7.1	145	6.1	337	6.2	630	6.4
Refusal	133	6.4	162	6.9	699	12.9	994	10.1
Parental refusal[2]	23	1.1	33	1.4	137	2.5	193	2.0
Other	98	4.7	97	4.1	198	3.7	393	4.0
Non-MSA								
Eligible HU members	714	100.0	1,194	100.0	4,079	100.0	5,987	100.0
Interview completed	555	77.7	1,073	89.9	3,256	79.8	4,884	81.6
No respondent home[1]	38	5.3	53	4.4	193	4.7	284	4.7
Refusal	45	6.3	28	2.3	407	10.0	480	8.0
Parental refusal[2]	25	3.5	6	0.5	91	2.2	122	2.0
Other	51	7.1	34	2.8	132	3.2	217	3.6
Total								
Eligible HU members	8,437	100.0	7,298	100.0	17,393	100.0	33,128	100.0
Interview completed	6,795	80.5	5,815	79.7	12,890	74.1	25,500	77.0
No respondent home[1]	625	7.4	575	7.9	1,100	6.3	2,300	6.9
Refusal	540	6.4	539	7.4	2,177	12.5	3,256	9.8
Parental refusal[2]	113	1.3	85	1.2	483	2.8	681	2.1
Other	364	4.3	284	3.9	743	4.3	1,391	4.2

HU = housing unit; MSA = metropolitan statistical area.

[1] Results include interviewer codes for no one at home after repeated visits and codes for respondent unavailable after repeated visits.
[2] Parental refusals were assigned to persons aged 12 to 17 only.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table B.6 Number of Visits Required to Complete Interviews, 1998

Visits	Interviews	Percentage	Cumulative Percentage
1	11,564	45.3	45.3
2	5,890	23.1	68.4
3	2,386	9.4	77.8
4	1,484	5.8	83.6
5-9	3,043	11.9	95.6
10+	406	1.6	97.1
Missing	726	2.8	100.0
Total	25,500	--	--

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table B.7 Interviewer's Assessment of Respondent's Level of Privacy During Interview, by Age and Race/Ethnicity of Respondent, 1998

Race/Ethnicity and Interviewer Assessment	Age Group in Years				Total
	12-17	18-25	26-34	≥35	
Hispanic					
Total number	1,869	2,187	1,432	1,307	6,795
Level of privacy (percentage of total)					
01 - Completely private	59.2	70.8	68.2	68.9	66.7
02 - Person(s) in room < 1/4 of time	21.3	14.5	15.9	17.6	17.3
03 - Person in Room 1/4 to ½ time	8.0	6.0	5.9	5.1	6.4
04 - Serious interruptions > ½ time	2.8	2.3	2.8	2.4	2.6
05 - Constant presence of other people	7.2	5.3	5.8	4.6	5.8
06 - Not sure	1.5	1.1	1.3	1.4	1.3
Black, Non-Hispanic					
Total number	1,374	1,798	1,053	1,590	5,815
Level of privacy (percentage of total)					
01 - Completely private	54.4	69.2	70.5	77.7	68.3
02 - Person(s) in room < 1/4 of time	24.7	15.9	13.5	10.8	16.1
03 - Person in Room 1/4 to ½ time	8.4	5.0	5.1	3.1	5.3
04 - Serious interruptions > ½ time	2.2	2.1	1.9	1.6	2.0
05 - Constant presence of other people	9.2	5.8	7.5	5.0	6.7
06 - Not sure	1.2	2.0	1.5	1.8	1.7
White, Non-Hispanic					
Total number	3,535	3,333	2,052	3,970	12,890
Level of privacy (percentage of total)					
01 - Completely private	59.8	72.8	71.9	77.0	70.4
02 - Person(s) in room < 1/4 of time	21.6	13.7	14.2	11.7	15.3
03 - Person in Room 1/4 to ½ time	8.7	5.7	6.2	4.2	6.2
04 - Serious interruptions > ½ time	2.2	1.7	1.9	1.5	1.8
05 - Constant presence of other people	6.3	5.0	4.7	4.5	5.2
06 - Not sure	1.4	1.0	1.1	1.1	1.1

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table B.8 Interviewer's Assessment of Respondent's Level of Cooperation and Understanding, by Age and Race/Ethnicity of Respondent, 1998

Race/Ethnicity and Interviewer Assessment	Age Group in Years				Total
	12-17	18-25	26-34	≥35	
Hispanic					
Total number	1,869	2,187	1,432	1,307	6,795
Level of cooperation (percentage of total)					
Very cooperative	92.1	89.1	89.7	86.8	89.6
Fairly cooperative	5.9	8.7	7.8	9.1	7.8
Not very cooperative	0.6	1.1	1.5	2.4	1.3
Openly hostile	0.2	0.1	0.3	0.5	0.3
No response	1.2	1.1	0.7	1.2	1.1
Level of understanding (percentage of total)					
No difficulty	75.3	77.4	72.8	64.3	73.8
Just a little difficulty	17.5	13.4	16.6	18.1	16.1
A fair amount of difficulty	4.8	5.3	6.3	10.6	6.4
A lot of difficulty	0.7	1.5	2.4	5.1	2.2
No response	1.7	2.4	1.9	2.0	2.0
Black, Non-Hispanic					
Total number	1,374	1,798	1,053	1,590	5,815
Level of cooperation (percentage of total)					
Very cooperative	88.4	84.7	84.2	82.3	84.8
Fairly cooperative	9.8	11.5	12.4	13.9	11.9
Not very cooperative	0.9	1.7	1.7	2.2	1.7
Openly hostile	0.1	0.3	0.2	0.5	0.3
No response	0.7	1.8	1.4	1.1	1.3
Level of understanding (percentage of total)					
No difficulty	73.9	85.4	83.4	69.1	77.9
Just a little difficulty	18.2	9.7	10.2	13.9	12.9
A fair amount of difficulty	5.0	1.9	3.8	8.7	4.8
A lot of difficulty	1.5	0.9	0.8	6.2	2.5
No response	1.4	2.1	1.9	2.1	1.9
White, Non-Hispanic					
Total number	3,535	3,333	2,052	3,970	12,890
Level of cooperation (percentage of total)					
Very cooperative	93.3	92.5	92.4	90.8	92.2
Fairly cooperative	5.2	6.2	5.4	6.9	6.0
Not very cooperative	0.5	0.5	1.1	1.2	0.8
Openly hostile	0.1	0.1	0.1	0.2	0.1
No response	0.9	0.7	1.1	0.9	0.9
Level of understanding (percentage of total)					
No difficulty	83.9	91.1	91.5	86.0	87.6
Just a little difficulty	11.8	6.2	5.0	7.7	8.0
A fair amount of difficulty	2.3	1.1	1.2	2.7	2.0
A lot of difficulty	0.7	0.5	0.3	2.2	1.0
No response	1.4	1.3	1.9	1.5	1.5

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998

APPENDIX C

SAMPLING AND STATISTICAL INFERENCE

Appendix C: Sampling and Statistical Inference

Sampling Error and Confidence Intervals

In the 1998 National Household Survey on Drug Abuse (NHSDA), sampling error occurs due to the random process of sampling the total population of inferential interest (i.e., the civilian, noninstitutionalized population aged 12 or older within the United States). Other NHSDA reports have used 95% confidence intervals to quantify sampling error. Because the estimates in the NHSDA are frequently small percentages, the confidence intervals are based on logit transformations. Logit transformations yield asymmetric interval boundaries that provide a more suitable measure of sampling error for small percentages.

To illustrate, let the proportion P_d represent the true prevalence rate for a particular analysis domain "*d*." Then the logit transformation of P_d, commonly referred to as the "log odds," is defined as

$$L = \ln[P_d/(1-P_d)] \ ,$$

where "ln" denotes the natural logarithm.

Letting p_d be the estimate of the proportion, the log odds estimate becomes $\hat{L} = \ln[p_d/(1-p_d)]$. Then the lower and upper limits of L are calculated as

$$A = \hat{L} - K\left[\frac{\sqrt{var(p_d)}}{p_d(1-p_d)}\right]$$

$$B = \hat{L} + K\left[\frac{\sqrt{var(p_d)}}{p_d(1-p_d)}\right] ,$$

where $var(p_d)$ is the variance estimate of p_d, and K is the constant chosen to yield the proper level of confidence (e.g., $K = 1.96$ for 95% confidence limits).

Applying the inverse logit transformation to A and B above yields a confidence interval for p_d as follows:

$$p_{d,lower} = \frac{1}{1 + \exp(-A)}$$

$$p_{d,upper} = \frac{1}{1 + \exp(-B)} \ ,$$

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where "exp" denotes the inverse log transformation. The upper and lower limits of the percentage estimate are obtained by simply multiplying the upper and lower limits of p by 100.

Corresponding to the percentage estimates, the number of drug users, Y_d, can be estimated as

$$\hat{Y}_d = \hat{N}_d * p_d ,$$

where

$\hat{N}_d$ = estimated population total for domain d and

p_d = estimated proportion for domain d.

The confidence interval for $\hat{Y}_d$ is obtained by multiplying the lower and upper limits of the proportion confidence interval by $\hat{N}_d$. In addition, the variance of $\hat{Y}_d$ can be estimated as

$$var(\hat{Y}_d) = \hat{N}_d^2 * var(p_d) .^1$$

For the 1998 NHSDA, the design-based variance was estimated using a Taylor series linearization. For a given variance estimate, the associated design effect is the ratio of the design-based variance estimate over the variance that would have been obtained from a simple random sample of the same size. Because the combined design features of stratification, clustering, and unequal weighting are expected to increase the variance estimates, the design effect should virtually always be greater than one. For prevalence rates near zero, however, the variance inflating effects of unequal weighting and clustering were sometimes underestimated, resulting in design effects of less than one. Because the corresponding variance estimates were considered anomalously small, two other variance estimates were computed as quality control measures. The first was based only on the stratification and unequal weighting effects, and the second was based on no effects or simple random sampling. The reported variance estimate was then the maximum of these three estimates.

As in other publications, estimates with low precision were not reported. The criterion used for suppressing estimates was based on the relative standard error (RSE). The RSE is defined as the ratio of the standard error (SE) of the estimate over the estimate. For the 1998 NHSDA reports, the log transformation of the proportion estimate was used to calculate the RSE. Specifically, percentages and corresponding population estimates were suppressed if

$$RSE[-\ln(p)] > 0.175 \quad when\ p \leq 0.5$$

or

$$RSE[-\ln(1-p)] > 0.175 \quad when\ p > 0.5 .$$

For computational purposes, this is equivalent to

---

[1] This approach treats the estimated domain size, $\hat{N}_d$, as fixed. This is a good approximation in most cases because ratio adjustments tend to control the variability of estimates of domain sizes.

$$\frac{SE(p)/p}{-\ln(p)} > 0.175 \qquad when\ p \le 0.5$$

or

$$\frac{SE(p)/(1-p)}{-\ln(1-p)} > 0.175 \qquad when\ p > 0.5\ ,$$

where $SE(p)$ equals the standard error estimate of p. The log transformation of p is used to provide a more balanced treatment of measuring the quality of small, large, and intermediate p values. The switch to $(1-p)$ for p greater than 0.5 provides a symmetric suppression rule across the range of possible p values.

Statistical Significance of Differences

This section describes the methods that were used to compare prevalence estimates. Customarily, the observed difference between estimates is evaluated in terms of its statistical significance. "Statistical significance" refers to the probability that a difference as large as that observed would occur due to random error in the estimates if there were no difference in the prevalence rates for the population groups being compared. In Chapters 2 and 11, comparisons were made between estimates in the 1997 NHSDA survey and the 1998 survey and in the other chapters between estimates within the 1998 survey. The significance of observed differences is reported in Chapters 2 and 11 at the 0.05 and 0.01 levels, and in the other chapters at the 0.05 level. However, the reader may wish to compare prevalence estimates from two groups for which the significance of the difference is not reported.

To compare the prevalence of drug use for 1997 versus 1998, one can test the hypothesis of no difference in prevalence rates using the standard difference in proportions test, expressed as

$$Z = \frac{p1 - p2}{\sqrt{var(p1) + var(p2) - 2cov(p1,\ p2)}}\ ,$$

where

$p1$ = 1997 estimated proportion,

$var(p1)$ = variance estimate for $p1$,

$p2$ = 1998 estimated proportion,

$var(p2)$ = variance estimate for $p2$, and

$cov(p1, p2)$ = covariance between $p1$ and $p2$.

Under the null hypothesis of no difference in prevalence rates, Z is asymptotically distributed as a normal random variable; calculated values of Z can, therefore, be referred to the unit normal distribution to determine the corresponding probability level (i.e., p value). Because the 1997 and 1998 NHSDAs used a high percentage (76%) of overlapping sample segments (see Appendix D), the covariance term in the formula for Z is greater than zero in comparisons of the 1997 and 1998 surveys.

For comparing prevalence estimates within the same survey, the same Z statistic quoted above can be used. The covariance term in the formula for Z is again greater than zero because of the small positive covariance expected between any two nonindependent prevalence estimates.

Sample Design Effects and Generalized Standard Errors

This section describes the methods used to approximate sampling variability by computing generalized standard errors (SEs). (The SE estimate is the square root of the variance estimate, as described below.)

The best variance estimation approach is to use commercially available variance estimation software packages, such as the Research Triangle Institute (RTI) SUDAAN package (Shah, Barnwell, & Bieler, 1997). Most software packages compute variance estimates for means, percentages, and other statistics based on first-order Taylor series approximation of the deviations of estimates from their expected values. SEs have been computed using SUDAAN for all parameter estimates appearing in this report and are available from the Office of Applied Studies (OAS) upon request. Whenever possible, these estimates should be used to compute confidence intervals (CIs) and perform statistical comparisons. It is the goal here, however, to provide future users of the 1998 NHSDA database with *approximate* SE estimates for situations when the NHSDA's SE estimates are not available.

Two approaches for approximating SE estimates are presented in this section. The first uses median domain design effects. The second is based on a prediction equation obtained from modeling design effects. These alternatives to the published SE estimates are described below.

As noted previously, the design effect is the ratio of the design-based variance estimate divided by the variance estimate that would have been obtained from a simple random sample of the same size. Therefore, the design effect summarizes the effects of stratification, clustering, and unequal weighting on the variance of a complex sample design. Because clustering and unequal weighting are expected to increase the variance, the design effect should virtually always be greater than one.

As also discussed earlier, however, design effects were frequently less than one for prevalence rates near zero. Because these values were considered spurious, another design effect estimate based only on stratification and unequal weighting effects was substituted if it was greater than the total design effect. Moreover, if both design effect estimates were less than one, a value of one was substituted.

For the 1998 NHSDA, the median design effects were based on estimates from the following:

- ***15 illicit drug use categories:*** any illicit drug use; marijuana/hashish; cocaine; crack; inhalants; hallucinogens; lysergic acid diethylamide (LSD), phencyclidine (PCP); heroin; nonmedical use of any psychotherapeutic; nonmedical use of stimulants; nonmedical use of sedatives; nonmedical use of tranquilizers; nonmedical use of analgesics; any illicit drug except marijuana; and
- ***3 licit drug use categories:*** cigarettes, alcohol, and smokeless tobacco;
- for each of ***3 recency-of-use categories:*** lifetime use, past year use, and past month use.

The estimates of past month heavy drinking and binge drinking also were included in the licit drug use category, bringing the total number of estimates used for median calculations to 56.

For each specified domain within the 1998 NHSDA, a median design effect was calculated from the above estimates as opposed to calculating an average design effect. Because extreme values of some design effects would have distorted the associated averages, medians were chosen to provide a better measure of the central value. The domains were defined by cross-classifications of age by gender, race/ethnicity, population density, geographic region of residence, adult education, and current employment. Domains for Arizona and California also were included. Design effects associated with percentage estimates exhibiting low precision were not used. Because the design effects from the licit drug use estimates tended to be larger than the design effects from the illicit drug use estimates, the median design effects were computed separately for these two classifications.

Table C.1 presents the median design effects for the illicit drugs, and Table C.2 presents the median design effects for the licit drugs. These tables can be used to calculate an approximate variance estimate for a particular domain of the 1998 NHSDA as follows:

$$var(p_d)_{appx} = DEFF_{d,MED} * [p_d(1-p_d)/n_d] \; , \qquad \text{(C-1)}$$

where

p_d = estimated proportion for domain d,

n_d = sample size for domain d, and

$DEFF_{d,MED}$ = median design effect for domain d .

The approximate SE estimate for p_d, $SE(p_d)_{appx}$, is simply the square root of $var(p_d)_{appx}$.

When a median design effect for a domain under investigation is not listed in Tables C.1 or C.2, an alternative SE approximation is recommended. This approximation uses a prediction equation obtained from modeling estimated design effects. The definition of the design effect is the basis for the regression model:

$$DEFF(p) = var(p)/[p(1-p)/n] \; ,$$

where

$var(p)$ = design-based variance estimate of p, and

$[p(1-p)/n]$ = simple random sample variance estimate of p .

Taking the log (base 10) of both sides of the above equation leads to the following log-linear model:

$$\log[DEFF(p)] = \beta_0 + \beta_1 \log(p) + \beta_2 \log(1-p) + \beta_3 \log(n) \; ,$$

where

$\beta_0, \beta_1, \beta_2, \beta_3$ = regression coefficients for the intercept, $\log(p)$, $\log(1-p)$, and $\log(n)$, respectively.

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Separate models were fit for the licit and illicit drug use estimates in the 1998 NHSDA. The design effects used to calculate the medians in Tables C.1 and C.2 were used to fit the licit and illicit drug use models for the 1998 NHSDA. Estimated proportions less than 0.5 were converted to 1- p for the models.

By substituting the fitted model into the definition of the design effect, a prediction equation for the approximate SE is obtained:

$$SE_i\ (p)_{appx} = \frac{10^{(b_{0i}/2)} \cdot p^{(1+b_{1i})/2} \cdot (1-p)^{(1+b_{2i})/2}}{n^{(1-b_{3i})/2}}\ ,$$

where

$b_{0i}, b_{1i}, b_{2i}, b_{3i}$ = regression coefficients estimates for the intercept, log(p), log(1-p), and log(n), respectively.

The index-i indicates whether the SE approximation is for a licit drug or illicit drug prevalence estimate.

After solving for the regression coefficients, the above approximation reduces to the following two prediction equations:

$$SE(p_{illicit})_{appx} = \frac{1.1869 \cdot p^{(0.7640)} \cdot (1-p)^{(0.5916)}}{n^{(0.4259)}}\ . \qquad \text{(C-2)}$$

$$SE(p_{licit})_{appx} = \frac{0.8817 \cdot p^{(0.5043)} \cdot (1-p)^{(0.5393)}}{n^{(0.4068)}}\ . \qquad \text{(C-3)}$$

Tables C.3 and C.4 present generalized SEs for various percentages (from 1% to 99%) and sample sizes (from 100 to 25,500) for the 1998 NHSDA, predicted from Equations (C-2) and (C-3).

In summary, the user may obtain 1998 NHSDA SE estimates from the following recommended order of sources:

1. commercially available variance estimation software packages, such as SUDAAN; otherwise,
2. published SEs from this or other reports using data from the 1998 NHSDA (obtainable upon request from the OAS at SAMHSA); otherwise,
3. median domain design effects appearing in Tables C.1 and C.2 and application of Equation (C-1); otherwise,
4. model-based prediction, using Equations (C-2) and (C-3) or Tables C.3 and C.4 for national or regional estimates.

Once the variance estimates have been obtained, the user may apply the methods discussed in previous sections to compute confidence intervals or make statistical comparisons.

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Table C.1 Median Design Effects of Illicit Drug Use Estimates, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years				Total
	12-17	18-25	26-34	35+	
Total	**2.40**	**3.58**	**1.92**	**1.79**	**2.88**
Gender					
Male	2.18	3.46	1.76	1.45	2.49
Female	2.69	2.89	1.94	1.69	2.36
Race/Ethnicity[1]					
White, non-Hispanic	1.84	2.42	1.37	1.50	1.95
Black, non-Hispanic	2.19	1.94	1.57	1.76	2.39
Hispanic	1.73	2.03	1.76	1.66	2.12
Population Density					
Large metro	2.98	3.22	2.23	1.82	2.90
Small metro	1.97	3.15	1.82	1.48	2.51
Nonmetro	2.00	2.93	1.73	2.12	2.89
Region					
Northeast	1.57	2.11	1.67	2.22	1.75
North Central	1.54	2.02	1.36	1.41	2.00
South	1.93	3.59	2.39	1.99	2.97
West	3.47	3.54	2.24	1.79	3.96
Adult Education[2]					
Less than high school	N/A	3.76	3.26	1.64	2.28
High school graduate	N/A	3.01	1.91	1.79	2.26
Some college	N/A	3.89	1.80	1.72	2.61
College graduate	N/A	2.21	1.39	1.77	2.00
Current Employment[3]					
Full-time	N/A	3.10	1.95	2.01	2.47
Part-time	N/A	2.63	2.16	1.48	2.00
Unemployed	N/A	2.72	1.52	2.05	3.18
Other[4]	N/A	3.69	2.00	1.47	1.97
Arizona/California					
Arizona	1.54	1.84	1.43	1.32	3.14
California	1.79	1.84	2.13	1.42	2.72

Note: These design effects apply to the following drugs: any illicit drug use; marijuana/hashish; cocaine; crack; inhalants; hallucinogens; lysergic acid diethylamide (LSD); phencyclidine (PCP); heroin; nonmedical use of any psychotherapeutic; nonmedical use of stimulants; nonmedical use of sedatives; nonmedical use of tranquilizers; nonmedical use of analgesics; and any illicit drug except marijuana.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.

[2] Data on adult education are not applicable for 12 to 17 year olds. Total refers to adults aged 18 or older.

[3] Data on current employment are not applicable for 12 to 17 year olds. Total refers to adults aged 18 or older.

[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

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Table C.2 Median Design Effects of Licit Drug Use Estimates, by Age Group and Demographic Characteristics: 1998

Demographic Characteristic	Age Group in Years 12-17	18-25	26-34	35+	Total
Total	2.59	4.28	2.32	2.52	4.98
Gender					
Male	2.30	3.93	1.96	2.05	4.04
Female	3.05	4.46	2.04	2.02	4.04
Race/Ethnicity[1]					
White, non-Hispanic	1.86	3.84	1.75	1.83	3.31
Black, non-Hispanic	2.07	2.38	1.56	1.98	3.64
Hispanic	2.07	1.94	1.79	1.78	2.89
Population Density					
Large metro	3.52	3.41	2.36	2.13	5.05
Small metro	2.20	5.06	2.21	2.47	5.24
Nonmetro	2.40	3.09	2.02	2.12	4.68
Region					
Northeast	2.00	2.40	2.24	2.01	2.44
North Central	1.60	2.84	1.79	1.71	3.20
South	1.98	3.34	2.19	3.01	5.13
West	3.56	6.93	2.26	2.59	8.13
Adult Education[2]					
Less than high school	N/A	3.37	2.56	2.75	4.21
High school graduate	N/A	3.15	2.00	1.95	3.33
Some college	N/A	4.77	2.32	2.17	3.58
College graduate	N/A	2.57	1.94	1.79	2.27
Current Employment[3]					
Full-time	N/A	3.15	1.99	2.24	3.53
Part-time	N/A	3.74	2.05	1.77	2.95
Unemployed	N/A	2.57	2.22	2.13	3.74
Other[4]	N/A	5.44	2.14	2.33	3.33
Arizona/California					
Arizona	1.44	1.75	1.86	1.50	4.02
California	1.40	2.46	2.28	1.65	3.56

Note: These design effects apply to the following drugs: cigarettes, alcohol, smokeless tobacco, binge drinking, and heavy drinking.

N/A: Not applicable.

[1] The category "other" for race/ethnicity is not included.
[2] Data on adult education are not applicable for 12 to 17 year olds. Total refers to adults aged 18 or older.
[3] Data on current employment are not applicable for 12 to 17 year olds. Total refers to adults aged 18 or older.
[4] Retired, disabled, homemaker, student, or "other."

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

Table C.3 Generalized Standard Errors for Estimated Percentages of Illicit Drug Use Estimates: 1998

Sample Size for Base of Percentage, *n*	Estimated Percentage (Proportion, *p*, Multiplied by 100)								
	50	**40, 60**	**30, 70**	**20, 80**	**10, 90**	**5, 95**	**3, 97**	**2, 98**	**1, 99**
100	6.52	6.57	6.24	5.43	3.95	2.73	2.05	1.62	1.09
300	4.09	4.12	3.91	3.40	2.47	1.71	1.28	1.02	0.68
500	3.29	3.31	3.14	2.74	1.99	1.37	1.03	0.82	0.55
700	2.85	2.87	2.72	2.37	1.72	1.19	0.89	0.71	0.47
900	2.56	2.58	2.45	2.13	1.55	1.07	0.80	0.64	0.43
1,000	2.45	2.47	2.34	2.04	1.48	1.02	0.77	0.61	0.41
1,250	2.23	2.24	2.13	1.85	1.35	0.93	0.70	0.55	0.37
1,500	2.06	2.07	1.97	1.71	1.25	0.86	0.65	0.51	0.34
2,000	1.82	1.83	1.74	1.52	1.10	0.76	0.57	0.45	0.30
2,500	1.66	1.67	1.58	1.38	1.00	0.69	0.52	0.41	0.28
3,000	1.53	1.54	1.47	1.28	0.93	0.64	0.48	0.38	0.26
4,000	1.36	1.37	1.30	1.13	0.82	0.57	0.43	0.34	0.23
5,000	1.23	1.24	1.18	1.03	0.75	0.52	0.39	0.31	0.21
7,500	1.04	1.05	0.99	0.86	0.63	0.43	0.33	0.26	0.17
10,000	0.92	0.92	0.88	0.76	0.56	0.38	0.29	0.23	0.15
15,000	0.77	0.78	0.74	0.64	0.47	0.32	0.24	0.19	0.13
18,000	0.71	0.72	0.68	0.60	0.43	0.30	0.22	0.18	0.12
25,500[1]	0.62	0.62	0.59	0.51	0.37	0.26	0.19	0.15	0.10

Note: Generalized standard errors are predicted from the following equation: $SE = 100*[1.1869p^{\text{[illegible]}}*(1-p)^{\text{[illegible]}}/n^{\text{[illegible]}}]$.

[1] The total sample size for the 1998 NHSDA is 25,500.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

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Table C.4 Generalized Standard Errors for Estimated Percentages of Licit Drug Use Estimates: 1998

Sample Size for Base of Percentage, *n*	Estimated Percentage (Proportion, *p*, Multiplied by 100)								
	50	**40, 60**	**30, 70**	**20, 80**	**10, 90**	**5, 95**	**3, 97**	**2, 98**	**1, 99**
100	6.57	6.39	5.91	5.08	3.71	2.62	2.01	1.63	1.12
300	4.20	4.09	3.78	3.25	2.37	1.68	1.29	1.04	0.72
500	3.41	3.32	3.07	2.64	1.93	1.36	1.05	0.85	0.58
700	2.98	2.89	2.68	2.30	1.68	1.19	0.91	0.74	0.51
900	2.69	2.61	2.42	2.08	1.52	1.07	0.82	0.67	0.46
1,000	2.58	2.50	2.32	1.99	1.45	1.03	0.79	0.64	0.44
1,250	2.35	2.29	2.12	1.82	1.33	0.94	0.72	0.58	0.40
1,500	2.18	2.12	1.96	1.69	1.23	0.87	0.67	0.54	0.37
2,000	1.94	1.89	1.75	1.50	1.10	0.78	0.60	0.48	0.33
2,500	1.77	1.72	1.60	1.37	1.00	0.71	0.54	0.44	0.30
3,000	1.65	1.60	1.48	1.27	0.93	0.66	0.50	0.41	0.28
4,000	1.47	1.42	1.32	1.13	0.83	0.59	0.45	0.36	0.25
5,000	1.34	1.30	1.20	1.04	0.76	0.53	0.41	0.33	0.23
7,500	1.13	1.10	1.02	0.88	0.64	0.45	0.35	0.28	0.19
10,000	1.01	0.98	0.91	0.78	0.57	0.40	0.31	0.25	0.17
15,000	0.86	0.83	0.77	0.66	0.48	0.34	0.26	0.21	0.15
18,000	0.79	0.77	0.72	0.61	0.45	0.32	0.24	0.20	0.14
25,500[1]	0.69	0.67	0.62	0.53	0.39	0.28	0.21	0.17	0.12

Note: Generalized standard errors are predicted from the following equation: $SE = 100^{*}[.8817p^{(.5043)}*(1-p)^{(.5393)}/n^{(.4068)}]$.

[1] The total sample size for the 1998 NHSDA is 25,500.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

APPENDIX D

SAMPLING AND WEIGHTING PROCEDURES

Appendix D: Sampling and Weighting Procedures

The respondent universe for the 1998 NHSDA was the civilian, noninstitutionalized population aged 12 years or older within the United States, including residents of noninstitutional group quarters (e.g., shelters, rooming houses, dormitories), as well as residents of civilian housing on military bases. Persons excluded from the universe included those with no fixed address, residents of institutional quarters (such as jails and hospitals), and active military personnel. The survey used basically the same multistage area probability sample design that has been employed since the 1988 NHSDA. This design uses a composite size measure methodology and a specially designed within-dwelling selection procedure to ensure that desired sample sizes would be achieved for subpopulations defined by age and race/ethnicity. Oversampling was used to meet specified precision constraints for these subpopulations. As in the 1988 through 1997 NHSDAs, the 1998 NHSDA oversampled Hispanics in areas of high Hispanic concentration to reduce survey costs. Like the 1996 NHSDA, which used virtually the same segments surveyed in the 1995 NHSDA, the 1998 NHSDA basically revisited the 1997 NHSDA segment sample. Approximately 76% of the 1998 sample, or 2,030 segments, consisted of the unused members of the pairwise segment sample selected at the same time the 1997 segment samples were drawn. The remaining 24%, or 640 segments, were new segments either replacing 1997 segments with inadequate remaining dwelling unit sample sizes or segments representing newly defined noncertainty primary sampling units (PSUs). A combination of the pairwise sampling feature and the overlap feature helped reduce the sampling variance (of year-to-year difference estimates), as well as minimized field costs.

Similar to the 1997 NHSDA, the 1998 survey incorporated an Arizona and California supplemental sample large enough to yield defensible State-level estimates, in addition to contributing to national estimates. However, unlike the 1997 survey, the supplemental sample was included as part of the original design to allow for separate Arizona and California stratum definitions and was present in all four quarters of the survey.

As in previous NHSDAs, the basic sample design of the 1998 NHSDA involved five selection stages:

- the selection of PSUs (e.g., counties),
- the selection of subareas (blocks or block groups) within PSUs,
- the selection of listing units (housing units or individual dwelling units within noninstitutionalized group quarters occupied by one or more civilians) within these subareas,
- the selection of age domains (age groups 12 to 17, 18 to 25, 26 to 34, 35 to 49, and 50 or older) within sampled listing units, and
- the selection of eligible individuals within the sampled age domains.

The following sections describe these selection stages. A more complete description of the sample design can be found in the *1998 Methodological Resource Book* (OAS, in press a).

Selection of Primary Sampling Units

The 1998 national edition of the NHSDA used the same 115 PSUs selected for the 1995 through 1997 NHSDAs, 6 supplemental PSUs from Arizona and California, and an additional 16 noncertainty PSUs from 13 purposely selected States. These PSUs were selected to represent the Nation's total eligible population, including areas of high Hispanic concentration. The PSUs were defined as metropolitan areas, counties, groups of counties, Census tracts, and independent cities. The 115 PSUs in the national study comprised 43 certainty PSUs and 72 noncertainty PSUs. The 43 certainty PSUs were metropolitan areas with high Hispanic concentration that had been included in the NHSDA with certainty since 1988. The 72 noncertainty PSUs were selected with probability proportional to size (PPS) and minimal replacement to represent the balance of the Nation outside the 43 certainty PSUs. The national sample was supplemented by a PPS selection of four noncertainty PSUs from Arizona and two noncertainty PSUs from California. The additional 16 noncertainty PSUs were added in States with a small sample size to increase the reliability of estimates. Because the national sample provided representation for certainty PSUs in each State, no additional certainty PSUs were added to either sample.

The segments that formed the 43 certainty PSUs were partitioned into five strata:

- Stratum 1: Certainty-high-concentration Hispanic area segments. These segments had 71% or more Hispanics according to the 1990 Census.
- Stratum 2: Certainty-moderate-concentration Hispanic area segments. These segments had between 20% and 71% Hispanics according to the 1990 Census.
- Stratum 3: Certainty-low-concentration Hispanic area segments. These segments had fewer than 20% Hispanics but more than 2% of the combined Hispanic and black population according to the 1990 Census, and furthermore included fewer than 70% of the black population according to the 1990 Census.[1]
- Stratum 4: Certainty-high-concentration black area segments. These segments had fewer than 20% Hispanics but more than 2% of the combined Hispanic and black population according to the 1990 Census, and furthermore included at least 70% of the black population according to the 1990 Census.
- Stratum 5: Certainty-high-concentration white area segments. These segments had 2% or fewer of the combined Hispanic and black population according to the 1990 Census.

To complete the stratum definitions for the remainder of the national study, an initial global noncertainty stratum was created for the residual portion of the United States and defined as the initial noncertainty stratum representing the balance of the Nation.

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[1] In the interest of readability for this report, "white" is used to indicate "white, non-Hispanic" and "black" to indicate "black, non-Hispanic."

Following the final two stages of within-segment dwelling unit person sampling, segments in the noncertainty stratum for the national study were partitioned into five substrata to improve the efficiency of the design by reducing the size of the screening sample.

Prior to the formation of the final strata, an optimal allocation procedure was used to allocate the sample to the five strata listed above. The results of the allocation suggested that total survey costs would be minimized for fixed precision when Hispanics were oversampled in the national study strata in which they were concentrated. Once sufficient screening interviews were conducted to identify the required number of Hispanic dwellings, more than enough black and white dwellings would be identified so that these interviews could be proportionally allocated to strata in the national study. For the Arizona/California supplement, there was no oversampling of Hispanics because each State's Hispanic allocation in the national study component was large enough to satisfy State-level precision requirements. Consequently, the three racial/ethnic groups were sampled in the supplement so that the combined national study and supplemental samples would result in a proportionally allocated sample.

The 43 certainty PSUs for the national study contained about 80% of the Hispanic population in the United States, according to the 1990 Census. They also contained approximately 50% of the black and about 40% of the white U.S. population. The segments of Stratum 1, high Hispanic, had about 85% Hispanic dwellings on average and contained about 11% of the U.S. Hispanic population. At the same time, Stratum 12, high Hispanic for California, had 82% Hispanic dwellings and about 7% of the Hispanic population. The segments of Stratum 2, medium Hispanic, had about 41% Hispanic dwelling units and contained about 17% of the U.S. Hispanic population. California Stratum 13, defined the same as Stratum 2, had approximately 40% Hispanic dwelling units and contained 17% of the Hispanic population. Stratum 9 was a combination of definitions of Strata 1 and 2 for Arizona only; it had roughly 55% Hispanic dwelling units and contained 1.5% of the Hispanic population. The segments of Stratum 3 had about 11% Hispanic dwelling units and contained about 11% of the U.S. Hispanic population. California's Stratum 14 had 13% Hispanic dwellings and contained 11% of the Hispanic population, and Arizona's Stratum 10 had 13% Hispanic dwellings and contained 1.2% of the Hispanic population.

The remaining 72 noncertainty PSUs for the national study were selected from Stratum 6. The noncertainty PSUs, single counties, were selected with probability proportional to a composite size measure. The composite size measure was defined as the sum of racial/ethnic group dwelling counts weighted by the specified racial/ethnic sampling rates. This selection scheme allowed for targeting particular racial/ethnic subpopulation sample sizes. Chromy's (1979) probability minimum replacement sequential sampling scheme was used to select these 72 PSUs with probabilities proportional to their composite size measures. The use of a composite size measure ensured (a) roughly equal sample sizes per sample subarea (the second-stage unit of selection) and (b) roughly equal probabilities of selecting eligible individuals (the fifth- or final-stage unit of selection) within race/ethnicity, and age group.

A State-supplementary sample large enough to provide reliable estimates for Arizona and California was selected to participate in quarters 1 through 4 of the 1998 NHSDA. The certainty PSUs included in the supplement also were included in the national study. This supplement consisted of no additional certainty PSUs because a representative certainty-PSU sample from both States was already participating in the national study.

The same first-stage sampling frame used for the noncertainty national sample also was the basis for selecting an independent supplement of four PSUs from Arizona and two PSUs from California. Because the noncertainty counties in Arizona were large geographically relative to population density, the counties representing the residual outside the certainty counties in Arizona were subdivided into smaller areas (Census tracts). Groups of these tracts satisfying a minimum population size requirement were defined as PSUs so that data collection would be more manageable. For the noncertainty California PSU sample, no subdivision of counties was necessary; hence, each noncertainty-county was a single PSU.

Selection of the Second-Stage Sample: Subareas Within Primary Sampling Units

The 1998 NHSDA used all available segments that had adequate listing units from the 1997 NHSDA. Only 24% of the 1998 sample, or 640 segments, consisted of a new segment sample selected for the 1998 NHSDA. The remaining 76%, or 2,030 segments, overlapped with the 1997 survey year. The overlap feature was used to help to reduce the sampling variance for trend estimates, as well as minimize field costs.

The 1998 second-stage sampling frame was based on the 1990 Decennial Census. Census blocks were combined with adjacent blocks based on the block identification number to create nonoverlapping area segments with at least 90 occupied dwelling units. The sample segment size allocations, based on optimal allocation and the expected precision requirements of individual strata, are given in Table D.1 for each stratum. These allocations assumed that about nine interviews would be completed per sample segment.

The area segments from each stratum of each of the PSUs were selected with probabilities proportional to a size measure. For each stratum, a composite size measure was defined to equal a weighted sum of the numbers of all dwelling units with weights proportional to the desired racial/ethnic sampling rates. Segments within the national Strata 1 to 5 were sorted to implicitly stratify the sampling frame to reduce sampling variability and to control the distribution of the sample. Segments in Strata 1 and 5 were sorted by metropolitan size, PSU number, and socioeconomic status (SES) percentile based on a composite rental value index. Segments in Stratum 2 were sorted by metropolitan size, PSU number, percentage Hispanic, percentage black, and SES percentile. Segments in Strata 3 and 4 were sorted by metropolitan size, PSU number, percentage black, and SES percentile. Chromy's (1979) sequential selection routine was used to select the segments from the sorted segments within each stratum. A variable number of segments was selected from each PSU in Strata 1 to 5 based upon each PSU's composite size measure.

Prior to selecting segments from the national initial noncertainty stratum, the PSUs were divided into two groups: (a) high minority PSUs with 50% or more combined Hispanic and black eligible population, and (b) PSUs that had fewer than 50% minority population. Segments in high minority PSUs were sorted by the complement of the percentage Hispanic or the complement of the percentage black. The complement percentages were used to make the sorting transition proceed more smoothly from high minority to low minority. Segments in low minority PSUs were ordered by SES percentile. Chromy's (1979) sequential selection procedure was used to select segments from the sorted list, selecting 12 segments from each PSU with the probability proportional to the composite size measure.

In the Arizona and California supplements, a slightly different sorting of the sampling frame was used to control the distribution of the sample. Segments from Arizona's noncertainty PSUs were first ordered by percentage Hispanic, then by SES percentile. California's noncertainty PSU segments were ordered first by a rural/urban indicator, then by SES percentile. Chromy's (1979) sequential selection procedure was used to select nine area segments from each PSU with the probability proportional to their composite size measure. There were no additional segments selected from the certainty PSUs because the certainty PSUs for both States were well represented in the national study component.

After area segments were selected from within the initial noncertainty stratum, sample segments were poststratified to allow for oversampling of concentrated minority population segments at the dwelling unit and person sampling stages. This poststratification of noncertainty segments contributed to the cost efficiency of the sample design by ultimately reducing the screening sample.

This cost efficiency was achieved by noting that the size of the screening sample could be reduced *significantly by partitioning the initial noncertainty stratum into high racial/ethnic concentration strata.* The following three noncertainty strata (numbered 6, 7, and 8, respectively) were created: high black, high white, and the remainder of noncertainty segments. These strata were defined based on dwelling unit and target population percentages of a segment as determined by the 1990 Census block data. The third-stage sample of dwelling units was allocated to the strata of Table D.1, and separate within-household person sampling probabilities were set by these strata to meet the design precision requirements at minimum cost.

Selection of the Third-Stage Sample: Listing Units Within Subareas

Projections indicated that screenings had to be completed for approximately 73,000 dwelling units in order to identify sufficient dwelling units for the national and State samples to yield Hispanic and black age-domain samples of the desired size. Assuming an average 94% screening completion rate and a projected average 84.5% listing unit eligibility rate implied that approximately 92,000 listings had to be selected for both study components. A listing unit was ineligible for the study if it was (a) vacant; (b) a vacation, second, or temporary home; (c) not a dwelling unit; (d) a military facility whose occupants were only military personnel; or (e) an institutional housing facility.

Dwelling unit listings were selected using systematic sampling. The sampled listings then were sent to the field for screening. After first determining that a sampled listing was eligible for the study, the interviewer completed a dwelling roster that listed all residents aged 12 or older with their age and race/ethnicity. This roster formed the basis for the within-dwelling unit sampling of individuals.

Within-Dwelling Unit Sampling

The 1998 NHSDA used basically the same within-dwelling unit sample selection approach as the 1997 NHSDA. Following the third-stage sampling, interviewers screened each sampled dwelling unit. Based on the screening, the dwelling was classified according to the race/ethnicity of the head of the dwelling. The interviewers also determined the age domains represented by individuals residing in the dwelling in terms of presence or absence of individuals aged 12 to 17, 18 to 25, 26 to 34, 35 to 49, and 50 or older. Interviewers were provided a mechanism for selecting none, one, or two age domains and, subsequently, one sample person from each selected domain. The age domain selection probabilities were based on the desired sample sizes for each age group by racial/ethnic domain. If a dwelling unit contained two or more individuals in the same age domain, the probability of selecting a particular individual was based on the number of individuals in the age domain. In some instances, two individuals, usually one 12 to 17 year old and one adult, were selected from the same dwelling unit.

Weighting Procedures

The estimates of this report are based on sample survey data rather than on complete data for the population. This means that the data must be weighted to obtain unbiased estimates of drug use in the population represented by the 1998 NHSDA. The "final sampling weight" of the ith respondent, say w_i, can be interpreted as the number of persons in the NHSDA target population who are represented by the ith respondent. The sum of the weights over all respondents estimates the size of the total target population:

$$\sum_i w_i = \text{estimated size of target population} \qquad \text{(D-1)}$$

where the summation is over all NHSDA respondents in the 1998 NHSDA.

The final household and person-level sample weights for the 1998 NHSDA are a product of several factors, each representing either a probability of selection at some particular stage or some form of nonresponse or poststratification adjustment. The first seven factors are defined for all screener-complete dwelling units and reflect the fully adjusted dwelling unit sample weight. The latter five components reflect person-level selection within each screened dwelling unit, as well as any additional adjustments for person nonresponse and coverage error.

The first five components in the dwelling sample weight reflect the probability of selecting the dwelling unit. The five components are derived from (1) the probability of selecting the PSU, (2) the probability of selecting the geographic segment within each selected PSU, (3) a quarter segment weight adjustment, (4) a subsegmentation inflation factor (an adjustment that accounts for the subselection process), and (5) the probability of selecting a dwelling unit from within each counted, listed, and sampled segment. It should be noted that in the 1992 NHSDA, weight component (3) was used for the calculation of independent, quarter-level sample weights, but as with the 1993 through 1997 NHSDAs, this factor was not needed for the 1998 survey. Subsequently, weight component (3) has been set to one for all 1998 NHSDA selections. Also, when the field interviewers responsible for counting and listing traveled to a specified segment, occasionally they may have found that the number of potential dwelling units was much greater than what the sample frame (constructed from adjusted 1990 U.S. Census data) indicated. This error occurred either because of errors in the frame or, more commonly, due to rapid growth in a particular geographic area. When this occurred, the original segment was partitioned and a subsegment was randomly selected.

Weight component (6) is a dwelling unit weight smoothing adjustment. The weights were normalized by strata and quarter in order to force equal weights for each strata-by-quarter combination. (The sample of dwelling units was designed to yield equal probability sample.) This adjustment served as a measure to control for unequal weighting in the interest of reducing variance of estimates.

Weight component (7) is a dwelling unit nonresponse adjustment. After dwelling units were selected, a field interviewer was sent to the dwelling unit to screen the residence. Failure to obtain the screening interview from eligible dwelling units represented the first type of nonresponse in the study. Sample weights (computed as the product of the first five components) were adjusted for this type of nonresponse using an exponential regression model. This procedure uses exponential regression to model the expected value of a zero-one response indicator, given a set of predictor variables available for both respondents and nonrespondents. In 1998, the potential predictor variables included the State indicator (Arizona, California, or remainder of the United States), which was implicitly defined by stratum, NHSDA field supervisor designation, quarter of the year when interview(s) in the dwelling unit were conducted, region, population density of the sample segment (e.g., segment located in a metropolitan area with 1 million or more persons), type of dwelling unit (dormitory, other group quarters, or not group quarters), and other variables based on 1990 Census block and enumeration district characteristics, including percentage Hispanic, percentage black, percentage owner-occupied households, and a combined median housing and rent value. The NHSDA field supervisor designation variable identified the areas covered by each supervisor and was included to adjust for differential nonresponse among the field supervisors. After obtaining the final models, the adjustment factor was calculated as the inverse of the estimated response propensity.

After the completion of weight component (7), the final dwelling unit weight was calculated as the product of weight components (1-7) described above. This adjusted weight can be used to compute dwelling unit level estimates from the screener data.[2] In addition, these seven weight component factors become the first seven weight components of the final interview respondent sample weight. The remaining five weight components discussed below account for the person probability of selection for those people from whom an NHSDA interview was sought, as well as account for the person-level nonresponse and coverage errors resulting from the last stages of the sample design.

The probability of selecting a person is accounted for by weight components (8) and (9). A screening interview was considered complete only after a member of the unit told the field interviewer certain demographic information (age, race, gender, ethnicity, and marital status) about all survey eligible residents of the dwelling unit. A subset of these variables (race, ethnicity, and age group) was used to form demographic groups. One or two age groups were randomly selected using a race/ethnicity-specific sampling rate predetermined during the design of the 1998 study. The inverse of this rate, or the inverse of the probability of selecting a particular age group within the dwelling unit, represents weight component (8), the age group selection weight. Weight component (9) represents the inverse of the probability of selecting a person when more than one occupant of a dwelling unit has been classified in a selected age group.

Weight component (10) is a combined roster and person nonresponse adjustment. The sample weights of the interview respondents were adjusted to the weighted demographic distributions based on the full roster sample and the associated final weights for screened eligible dwellings. This adjustment was created using an exponential regression model for each stratum. The variables considered for this adjustment included a State indicator implicitly defined by stratum, age group, region, quarter, gender, population density, Hispanic indicator, relationship of person to householder, marital status, group quarters, segment characteristics (such as percentage Hispanic, percentage black, percentage owner-occupied dwelling units, and combined rent/housing value).

Weight component (11) is a weight trimming factor. To minimize the effect of extreme weights on the unequal weighting effect observed on the sample weights, computed using previous weight adjustment factors (1-10), the largest sample weights were truncated or "trimmed." To accomplish this weight trimming, maximum weight thresholds were determined within classes defined by design strata, race/ethnicity, and age group. If the sample weight for any respondent was greater than this threshold within each group, this adjustment factor was set to bring the sample weight down to equal the threshold.

Weight component (12) is a person poststratification adjustment. This adjustment forced weighted respondent sample data to equal specified control totals obtained from the Census Bureau's projections of the civilian, noninstitutionalized population aged 12 or older. The main effect control totals used for person poststratification were State indicator, age group, gender, quarter, Hispanic indicator, and race. Various two-way (such as age group by gender) and three-way (such as age group, gender, and Hispanic indicator) control totals also were used.

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[2] Dwelling unit level estimates using *interview questionnaire data* cannot be created using the product of these seven weight components because this requires proper nonresponse adjustment for only dwelling units with at least one selected interview and zero respondents, which is not accounted for in weight component (7).

Table D.1 Final Stratum Definitions and Sample Sizes for the Full Sample

Stratum	Description of Stratum	Number of Segments Allocated
National		
1	Certainty high Hispanic	70
2	Certainty moderate Hispanic	153
3	Certainty low Hispanic	319
4	Certainty high black, non-Hispanic	118
5	Certainty high non-black, non-Hispanic	70
6	Noncertainty high black, non-Hispanic	115
7	Noncertainty high non-black, non-Hispanic	315
8	Noncertainty remainder	602
	National Total	**1,762**
Arizona		
9	Certainty Arizona medium-high Hispanic	70
10	Certainty Arizona low Hispanic	214
11	Noncertainty Arizona remainder	72
	Arizona State Supplement Total	**356**
California		
12	Certainty California high Hispanic	48
13	Certainty California medium Hispanic	174
14	Certainty California low Hispanic	306
15	Noncertainty California remainder	24
	California State Supplement Total	**552**
	Total	**2,670**

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse, 1998.

APPENDIX E

ADJUSTMENT OF 1979-1993 NHSDA ESTIMATES

Appendix E: Adjustment of 1979-1993 NHSDA Estimates

Adjustment of 1979-1993 NHSDA Estimates to Account for the New Survey Methodology Used in the 1994 and Later NHSDAs

The NHSDA is an important source of data for policymakers, not only because it provides measures of substance abuse for a single year, but also because the series of surveys over the past several years provides a measure of change in substance abuse in the population over time. Beginning in 1994, the NHSDA began using an improved questionnaire and estimation procedure based on a series of studies and consultations with drug survey experts and data users. Because this new methodology produces estimates that are not directly comparable to previous estimates, the 1979-1993 NHSDA estimates presented in Chapter 2 of this report were adjusted to account for the new methodology that was begun in 1994.

Nearly all of the 1979-1993 substance use prevalence estimates presented in Chapter 2 were adjusted using a simple ratio correction factor that was estimated at the total population level using data from the pooled 1993 and 1994 NHSDAs. The remaining substance use prevalence estimates were adjusted by formally modeling the effect of the new methodology, relative to the old methodology, using data from the 1994 NHSDA. The modeling procedure was used for the more prevalent substance use measures that changed significantly between the old- and new-version NHSDA questionnaires. The modeling procedure was particularly desirable for the more prevalent measures because the procedure was able to use a greater number of potentially significant explanatory variables in the adjustment compared with the simple ratio correction factor. Each of the procedures is discussed below.

Ratio Adjustment

Most of the 1979-1993 NHSDA estimates were adjusted using a ratio correction factor that measured the effect of the new methodology, relative to the old methodology, using data from the 1993 and 1994 NHSDAs. As explained in the introduction to Advance Report No. 18 (OAS, 1996b), the 1994 NHSDA was designed to generate two sets of estimates. The first set of estimates, which in previous reports was referred to as the 1994-A set of estimates, was based on the same questionnaire and editing method that was used in 1993 (and earlier). The second set of estimates, referred to as the 1994-B set, was based on the new NHSDA survey methodology. Because the 1994-A estimates were generated from a sample that was roughly one-fourth the size of the 1994-B, to increase the precision of the ratio correction factor, the 1994-A sample was pooled with the 1993 sample.

The 1979-1993 NHSDA estimates that were adjusted using the ratio correction factor included estimates of lifetime, past year, and past month use of cocaine, crack, inhalants, hallucinogens (including PCP and LSD), heroin, any psychotherapeutic, stimulants, sedatives, tranquilizers, analgesics, any illicit drug other than marijuana, and smokeless tobacco, as well as estimates of past year frequency of use of marijuana, cocaine, and alcohol. This adjustment was computed at the total sample level and was applied equally to all corresponding estimates computed among subgroups of the total population. Consequently, for example, the same ratio adjustment was used to correct all estimates of past year cocaine use, regardless of the demographic subgroup under consideration. Mathematically, this ratio adjustment can be expressed as follows: Suppose i denotes the sampled respondent, y_i denotes a 0/1 variable to indicate nonuse or use of some particular substance, and w_i denotes the sample weight. Then the ratio adjustment was computed as

$$R = \frac{\sum_{i \in S_{1994-B}} w_i\, y_i}{\sum_{i \in S_{1993 \cup 1994-A}} w_i\, y_i} = \frac{\bar{y}_{1994-B}}{\bar{y}_{1993 \cup 1994-A}}$$

The latter equality is true because the sample weights in the pooled 1993 and 1994-A sample were adjusted slightly so that they would sum to the same demographic control totals as the 1994-B sample across the variables typically used in the NHSDA poststratification procedure.

Model-Based Adjustment

A model-based method of computing adjustments that would account for the changes in the NHSDA methodology was used for estimates of the use of the more prevalent drugs, including lifetime, past year, and past month use of alcohol, marijuana, cigarettes, and any illicit drug, as well as past month binge drinking and past month heavy drinking. The model that was used is based on a constrained exponential model originally proposed by Deville and Särndal (1992). Similar to the ratio adjustment, this method of adjusting previous estimates models the combined effect of all measurement error differences between the new and old methodologies. This model offers the primary advantages of allowing (a) a greater number of potentially significant explanatory variables in the adjustment and (b) bounding the resulting adjustment between predetermined thresholds. This a priori bounding eliminates extreme adjustments that might otherwise occur, particularly for small subpopulations. Additionally, the model-fitting procedure used to compute the adjustment forces the adjusted 1994-A estimates to equal the 1994-B estimates within the subpopulations represented by the dummy variables in the vector of model predictors. Mathematically, this model can be expressed as follows:

$$R_i = \frac{L(U-1) + U(1-L)e^{-AX_i\beta}}{(U-1) + (1-L)e^{-AX_i\beta}} \quad (1)$$

where the ratio adjustment R_i can be interpreted as

$$R_i = \frac{\text{Probability of Reporting Use with the New Survey Methodology}}{\text{Probability of Reporting Use with the Old Survey Methodology}}$$

In equation (1), the constant A is simply a scale factor set equal to $[U-L] \div [(1-L)(U-1)]$, β are the model coefficients, and X_i is a vector of explanatory variables. The explanatory variables considered in the models consisted of the categorical indicator variables for age group and race/ethnicity. The parameters L and U are the predetermined constants that force the estimated R_i to be

$$L \le R_i \le U \qquad \textit{for all } i \textit{ and for any value of } X_i\beta.$$

Notice that if the constant L is set equal to zero and U approaches ∞, then the constant A approaches 1, and equation (1) reduces to the familiar, unconstrained exponential model:

$$R_i = e^{-X_i\beta}.$$

The model parameter vector β in (1) was estimated by solving the generalized raking equations:

$$\sum_{i \in S_{1994-A}} w_i\, R_i\, X_i^T\, y_i \;=\; \sum_{i \in S_{1994-B}} w_i\, X_i^T\, y_i \quad \text{subject to the constraints.}$$

Notice from the above raking equations that the estimated adjustment R_i forces the 1994-A estimate to equal the 1994-B estimate for any subpopulation represented by an indicator variable in X_i. Therefore, for example, if an appropriate indicator for the age group = 12 to 17 year olds was included in X_i, then the model-based estimate of the R_i's would produce an adjusted prevalence estimate using the 1994-A sample that exactly equaled the prevalence estimate generated from the 1994-B sample for the 12 to 17 age group.

APPENDIX F

ANSWER SHEETS FROM 1998 QUESTIONNAIRE

EXAMPLE QUESTIONS

EQ-1. How long has it been since you last went to the movies?

Within the past 30 days ☐ 1
More than 30 days ago but within the past 12 months ☒ 2
More than 12 months ago but within the past 3 years ☐ 3
More than 3 years ago ☐ 4
I have never been to the movies in my life ☐ 91

EQ-2. During the past 30 days, on how many days did you eat corn?

Number of days I ate corn 3
I have eaten corn but not during the past 30 days ☐ 93
I have never eaten corn in my life ☐ 91

The first 10 questions are about cigarettes only.

C-1. Have you ever smoked a cigarette, even one or two puffs?

Yes, I have smoked at least a puff or two from a cigarette ☐ 1
No, I have never smoked a cigarette in my life ☐ 2

C-2. How old were you the first time you smoked a cigarette, even one or two puffs?

The first time I smoked a cigarette, I was ____ years old
I have never smoked a cigarette in my life ☐ 991

C-3. Think about the entire time since you first smoked a cigarette. Altogether, on how many days in your life have you smoked a cigarette?

More than 300 days ☐ 1
At least 101 but not more than 300 days ☐ 2
At least 12 but not more than 100 days ☐ 3
At least 3 but not more than 11 days ☐ 4
At least 1 but not more than 2 days ☐ 5
I have never smoked a cigarette in my life ☐ 91

(PLEASE TURN THE PAGE.)

C-4. How long has it been since you last smoked a cigarette?

Within the past 30 days ☐ 1
More than 30 days ago but within the past 12 months ☐ 2
More than 12 months ago but within the past 3 years ☐ 3
More than 3 years ago ☐ 4
I have never smoked a cigarette in my life ☐ 91

THE NEXT THREE QUESTIONS REFER TO THE PAST 30 DAYS ONLY.

C-5. Think specifically about the past 30 days -- that is, from your 30-day reference date up to and including today. During the past 30 days, on how many days did you smoke a cigarette?

Number of days I smoked at least a puff or two from a cigarette ☐

IF NONE, MARK ONE BOX FOR BEST ANSWER →
I have smoked cigarettes but not during the past 30 days ☐ 93
I have never smoked a cigarette in my life ☐ 91

C-6. When you smoked cigarettes during the past 30 days, how many did you usually smoke each day? *If the number varied from day to day, mark the box for the number of cigarettes you smoked on a typical day.*

At least a puff or two but less than 1 cigarette each day ☐ 1
At least 1 but not more than 5 cigarettes each day ☐ 2
At least 6 but not more than 15 cigarettes (about 1/2 pack) each day ☐ 3
At least 16 but not more than 25 cigarettes (about 1 pack) each day ☐ 4
At least 26 but not more than 35 cigarettes (about 1 1/2 packs) each day ☐ 5
More than 35 cigarettes (about 2 packs or more) each day ☐ 6

IF NONE, MARK ONE BOX FOR BEST ANSWER →
I have smoked cigarettes but not during the past 30 days ☐ 93
I have never smoked a cigarette in my life ☐ 91

C-7. When you smoked cigarettes during the past 30 days, how soon after you woke up in the morning did you usually smoke your first cigarette?

5 minutes or less ☐ 1
6 to 30 minutes ☐ 2
31 to 60 minutes ☐ 3
1 to 3 hours ☐ 4
4 or more hours ☐ 5

IF NONE, MARK ONE BOX FOR BEST ANSWER →
I have smoked cigarettes but not during the past 30 days ☐ 93
I have never smoked a cigarette in my life ☐ 91

(PLEASE GO TO THE NEXT PAGE.)

THE REST OF THE QUESTIONS ON THIS ANSWER SHEET ASK ABOUT YOUR ENTIRE LIFETIME.

C-8. Has there ever been a period in your life when you smoked cigarettes every day?

Yes . . . . ☐ 1
No . . . . ☐ 2

C-9. How old were you when you first started smoking cigarettes every day?

I started smoking cigarettes every day when I was . . . . ☐☐ years old

IF NONE, MARK ONE BOX FOR BEST ANSWER →
I have smoked cigarettes but never every day . . . . ☐ 993
I have never smoked a cigarette in my life . . . . ☐ 991

C-10. For how many years have you smoked or did you smoke cigarettes every day?

RECORD NUMBER OF YEARS OR MARK A BOX:
Number of years I smoked cigarettes every day was . . . . ☐☐ year(s)
I smoked cigarettes every day but only for less than one whole year . . . . . . ☐ 0

IF NONE, MARK ONE BOX FOR BEST ANSWER →
I have smoked cigarettes but never every day . . . . ☐ 993
I have never smoked a cigarette in my life . . . . ☐ 991

The last 2 questions are about smokeless tobacco, such as chewing tobacco and snuff.

C-11. Have you ever, even once, used chewing tobacco or snuff?

Yes, I have used chewing tobacco or snuff . . . . ☐ 1
No, I have never used chewing tobacco or snuff in my life . . . . ☐ 2

C-12. How long has it been since you last used chewing tobacco or snuff?

Within the past 30 days . . . . ☐ 1
More than 30 days ago but within the past 12 months . . . . ☐ 2
More than 12 months ago but within the past 3 years . . . . ☐ 3
More than 3 years ago . . . . ☐ 4
I have never used chewing tobacco or snuff in my life . . . . ☐ 91

YOU HAVE FINISHED THE QUESTIONS ABOUT TOBACCO.

THANK YOU FOR ANSWERING THESE QUESTIONS.

TELL THE INTERVIEWER THAT YOU ARE FINISHED WITH THE TOBACCO QUESTIONS.

ALCOHOL **Answer Sheet #2**

A-1. The next few questions are about drinks of alcoholic beverages. By a "drink," we mean a can or bottle of beer, a glass of wine or a wine cooler, a shot of liquor, or a mixed drink with liquor in it. Have you ever, even once, had a drink of any type of alcoholic beverage? *Do not include sips from another person's drink.*

Yes, I have had a drink of an alcoholic beverage . . . . ☐ 1
No, I have never had a drink of any alcoholic beverage in my life . . . . ☐ 2

A-2. How old were you the first time you had a drink of any alcoholic beverage? *Do not include sips from another person's drink.*

The first time I drank an alcoholic beverage, I was . . . . ____ years old
I have never drunk an alcoholic beverage in my life . . . . ☐ 991

A-3. Think about the last time you drank any type of alcoholic beverage. How long has it been since you last drank an alcoholic beverage?

Within the past 30 days . . . . ☐ 1
More than 30 days ago but within the past 12 months . . . . ☐ 2
More than 12 months ago but within the past 3 years . . . . ☐ 3
More than 3 years ago . . . . ☐ 4
I have never drunk an alcoholic beverage in my life . . . . ☐ 91

A-4. Now think about the past 12 months, from your 12-month reference date through today. On how many days in the past 12 months did you drink an alcoholic beverage?

More than 300 days (every day or almost every day) . . . . ☐ 1
At least 201 but not more than 300 days (5 to 6 days a week) . . . . ☐ 2
At least 101 but not more than 200 days (3 to 4 days a week) . . . . ☐ 3
At least 51 but not more than 100 days (1 to 2 days a week) . . . . ☐ 4
At least 25 but not more than 50 days (3 to 4 days a month) . . . . ☐ 5
At least 12 but not more than 24 days (1 to 2 days a month) . . . . ☐ 6
At least 6 but not more than 11 days (less than one day a month) . . . . ☐ 7
At least 3 but not more than 5 days in the past 12 months . . . . ☐ 8
At least 1 but not more than 2 days in the past 12 months . . . . ☐ 9

IF NONE, MARK ONE BOX FOR BEST ANSWER →
I have drunk alcoholic beverages but not during the past 12 months . . . . . . ☐ 93
I have never drunk an alcoholic beverage in my life . . . . ☐ 91

(PLEASE TURN THE PAGE.)

A-5. During the past 12 months, when you drank alcoholic beverages, on how many days did you get very high or drunk?

More than 300 days (every day or almost every day) ☐ 1
At least 201 but not more than 300 days (5 to 6 days a week) ☐ 2
At least 101 but not more than 200 days (3 to 4 days a week) ☐ 3
At least 51 but not more than 100 days (1 to 2 days a week) ☐ 4
At least 25 but not more than 50 days (3 to 4 days a month) ☐ 5
At least 12 but not more than 24 days (1 to 2 days a month) ☐ 6
At least 6 but not more than 11 days (less than one day a month) ☐ 7
At least 3 but not more than 5 days in the past 12 months ☐ 8
At least 1 but not more than 2 days in the past 12 months ☐ 9

IF NONE, MARK ONE BOX FOR BEST ANSWER →

I drank an alcoholic beverage in the past 12 months but I did not get very high or drunk ☐ 90
I have drunk alcoholic beverages but not during the past 12 months ☐ 93
I have never drunk an alcoholic beverage in my life ☐ 91

(PLEASE GO TO THE NEXT PAGE.)

THE NEXT THREE QUESTIONS REFER TO THE PAST 30 DAYS ONLY.

A-6. Think specifically about the past 30 days -- that is, from your 30-day reference date up to and including today. During the past 30 days, on how many days did you drink one or more drinks of alcoholic beverages?

Number of days I had a drink of an alcoholic beverage . . . . |___|

IF NONE, MARK ONE → BOX FOR BEST ANSWER

I have drunk alcoholic beverages but not during the past 30 days . . . . ☐ 93
I have never drunk an alcoholic beverage in my life . . . . ☐ 91

A-7. On the days that you drank during the past 30 days, how many drinks did you usually have? *Count as a drink a can or bottle of beer; a wine cooler or a glass of wine, champagne, or sherry; a shot of liquor or a mixed drink or cocktail.*

On the days I had an alcoholic beverage, I usually had . . . . |___| drink(s) per day

IF NONE, MARK ONE → BOX FOR BEST ANSWER

I have drunk alcoholic beverages but not during the past 30 days . . . . ☐ 93
I have never drunk an alcoholic beverage in my life . . . . ☐ 91

A-8. During the past 30 days, on how many days did you have 5 or more drinks on the same occasion? *By "occasion," we mean at the same time or within a couple of hours of each other.*

Number of days I drank 5 or more drinks of an alcoholic beverage . . . . . . |___|

IF NONE, MARK ONE → BOX FOR BEST ANSWER

On the days I drank during the past 30 days, I never had 5 or more drinks . ☐ 90
I have drunk alcoholic beverages but not during the past 30 days . . . . ☐ 93
I have never drunk an alcoholic beverage in my life . . . . ☐ 91

YOU HAVE FINISHED THE QUESTIONS ABOUT ALCOHOL.

THANK YOU FOR ANSWERING THESE QUESTIONS.

TELL THE INTERVIEWER THAT YOU ARE FINISHED WITH THE ALCOHOL QUESTIONS.

MARIJUANA **Answer Sheet #3**

The questions in this section are about marijuana and hashish. Marijuana is also called pot or grass. Marijuana is usually smoked -- either in cigarettes, called joints, or in a pipe. It is sometimes cooked in food. Hashish is a form of marijuana that is also called "hash." It is usually smoked in a pipe. Another form of hashish is hash oil.

M-1. Have you ever, even once, used marijuana or hashish?

Yes, I have used marijuana or hashish	☐ 1
No, I have never used marijuana or hashish in my life	☐ 2

M-2. How old were you the first time you used marijuana or hashish?

The first time I used marijuana or hashish, I was	___ years old
I have never used marijuana or hashish in my life	☐ 991

M-3. Think about the entire time since you first used marijuana or hashish. Altogether, on how many days in your life have you used marijuana or hashish?

More than 300 days	☐ 1
At least 101 but not more than 300 days	☐ 2
At least 12 but not more than 100 days	☐ 3
At least 3 but not more than 11 days	☐ 4
At least 1 but not more than 2 days	☐ 5
I have never used marijuana or hashish in my life	☐ 91

M-4. How long has it been since you last used marijuana or hashish?

Within the past 30 days	☐ 1
More than 30 days ago but within the past 12 months	☐ 2
More than 12 months ago but within the past 3 years	☐ 3
More than 3 years ago	☐ 4
I have never used marijuana or hashish in my life	☐ 91

(PLEASE TURN THE ANSWER SHEET OVER.)

M-5. Now think about the past 12 months, from your 12-month reference date through today. On how many days in the past 12 months did you use marijuana or hashish?

More than 300 days (every day or almost every day) . . . . ☐ 1
At least 201 but not more than 300 days (5 to 6 days a week) . . . . ☐ 2
At least 101 but not more than 200 days (3 to 4 days a week) . . . . ☐ 3
At least 51 but not more than 100 days (1 to 2 days a week) . . . . ☐ 4
At least 25 but not more than 50 days (3 to 4 days a month) . . . . ☐ 5
At least 12 but not more than 24 days (1 to 2 days a month) . . . . ☐ 6
At least 6 but not more than 11 days (less than one day a month) . . . . ☐ 7
At least 3 but not more than 5 days in the past 12 months . . . . ☐ 8
At least 1 but not more than 2 days in the past 12 months . . . . ☐ 9

IF NONE, MARK ONE BOX FOR BEST ANSWER →
I have used marijuana or hashish but not during the past 12 months . . . . . . ☐ 93
I have never used marijuana or hashish in my life . . . . ☐ 91

M-6. Think specifically about the past 30 days -- that is, from your 30-day reference date up to and including today. During the past 30 days, on how many days did you use marijuana or hashish?

Number of days I used marijuana or hashish . . . . ____

IF NONE, MARK ONE BOX FOR BEST ANSWER →
I have used marijuana or hashish but not during the past 30 days . . . . ☐ 93
I have never used marijuana or hashish in my life . . . . ☐ 91

YOU HAVE FINISHED THE QUESTIONS ABOUT MARIJUANA.

THANK YOU FOR ANSWERING THESE QUESTIONS.

TELL THE INTERVIEWER THAT YOU ARE FINISHED WITH THE MARIJUANA QUESTIONS.

COCAINE **Answer Sheet #4**

The questions in this section are about cocaine, including all the different forms of cocaine such as powder, "crack," free base, and coca paste.

CN-1. Have you ever, even once, used any form of cocaine?

Yes, I have used some form of cocaine . . . . ☐ 1
No, I have never used any form of cocaine in my life . . . . ☐ 2

CN-2. How old were you the first time you used cocaine, in any form?

The first time I used some form of cocaine, I was . . . . ☐ years old
I have never used any form of cocaine in my life . . . . ☐ 991

CN-3. Think about the entire time since you first used cocaine. Altogether, on how many days in your life have you used cocaine?

More than 300 days . . . . ☐ 1
At least 101 but not more than 300 days . . . . ☐ 2
At least 12 but not more than 100 days . . . . ☐ 3
At least 3 but not more than 11 days . . . . ☐ 4
At least 1 but not more than 2 days . . . . ☐ 5
I have never used any form of cocaine in my life . . . . ☐ 91

CN-4. How long has it been since you last used any form of cocaine?

Within the past 30 days . . . . ☐ 1
More than 30 days ago but within the past 12 months . . . . ☐ 2
More than 12 months ago but within the past 3 years . . . . ☐ 3
More than 3 years ago . . . . ☐ 4
I have never used any form of cocaine in my life . . . . ☐ 91

(PLEASE TURN THE ANSWER SHEET OVER.)

CN-5. Now think about the past 12 months. On how many days in the past 12 months did you use cocaine?

More than 300 days (every day or almost every day) . . . . ☐ 1
At least 201 but not more than 300 days (5 to 6 days a week) . . . . ☐ 2
At least 101 but not more than 200 days (3 to 4 days a week) . . . . ☐ 3
At least 51 but not more than 100 days (1 to 2 days a week) . . . . ☐ 4
At least 25 but not more than 50 days (3 to 4 days a month) . . . . ☐ 5
At least 12 but not more than 24 days (1 to 2 days a month) . . . . ☐ 6
At least 6 but not more than 11 days (less than one day a month) . . . . ☐ 7
At least 3 but not more than 5 days in the past 12 months . . . . ☐ 8
At least 1 but not more than 2 days in the past 12 months . . . . ☐ 9

IF NONE, MARK ONE BOX FOR BEST ANSWER →
I have used cocaine but not during the past 12 months . . . . ☐ 93
I have never used any form of cocaine in my life . . . . ☐ 91

CN-6. Think specifically about the past 30 days. During the past 30 days, on how many days did you use cocaine?

Number of days I used some form of cocaine . . . . |__|

IF NONE, MARK ONE BOX FOR BEST ANSWER →
I have used cocaine but not during the past 30 days . . . . ☐ 93
I have never used any form of cocaine in my life . . . . ☐ 91

YOU HAVE FINISHED THE QUESTIONS ABOUT COCAINE.

THANK YOU FOR ANSWERING THESE QUESTIONS.

TELL THE INTERVIEWER THAT YOU ARE FINISHED WITH THE COCAINE QUESTIONS.

"CRACK" COCAINE

Answer Sheet #5

The next 6 questions refer only to "crack" (cocaine in rock or chunk form) and not the other forms of cocaine.

CK-1. Have you ever, even once, used "crack?"

Yes, I have used "crack" ☐ 1
No, I have never used "crack" in my life ☐ 2

CK-2. How old were you the first time you used "crack?"

The first time I used "crack," I was ____ years old
I have never used "crack" in my life ☐ 991

CK-3. Think about the entire time since you first used "crack [illegible] Altogether, on how many days in your life have you used "crack?"

More than 300 days ☐ 1
At least 101 but not more than 300 days ☐ 2
At least 12 but not more than 100 days ☐ 3
At least 3 but not more than 11 days ☐ 4
At least 1 but not more than 2 days ☐ 5
I have never used "crack" my life ☐ 91

CK-4. How long has it been since you last used "crack?"

Within the past 30 days ☐ 1
More than 30 days ago but within the past 12 months ☐ 2
More than 12 months ago but within the past 3 years ☐ 3
More than 3 years ago ☐ 4
I have never used "crack" in my life ☐ 91

(PLEASE TURN THE ANSWER SHEET OVER.)

CK-5. Now think about the past 12 months, from your 12-month reference date through today. On how many days in the past 12 months did you use "crack?"

	More than 300 days (every day or almost every day)	☐ 1
	At least 201 but not more than 300 days (5 to 6 days a week)	☐ 2
	At least 101 but not more than 200 days (3 to 4 days a week)	☐ 3
	At least 51 but not more than 100 days (1 to 2 days a week)	☐ 4
	At least 25 but not more than 50 days (3 to 4 days a month)	☐ 5
	At least 12 but not more than 24 days (1 to 2 days a month)	☐ 6
	At least 6 but not more than 11 days (less than one day a month)	☐ 7
	At least 3 but not more than 5 days in the past 12 months	☐ 8
	At least 1 but not more than 2 days in the past 12 months	☐ 9
IF NONE, MARK ONE → BOX FOR BEST ANSWER	I have used "crack" but not during the past 12 months	☐ 93
	I have never used "crack" in my life	☐ 91

CK-6. Think specifically about the past 30 days -- that is, from your 30-day reference date up to and including today. During the past 30 days, on how many days did you use "crack?"

	Number of days I used "crack"	|___|
IF NONE, MARK ONE → BOX FOR BEST ANSWER	I have used "crack" but not during the past 30 days	☐ 93
	I have never used "crack" in my life	☐ 91

YOU HAVE FINISHED THE QUESTIONS ABOUT "CRACK."

THANK YOU FOR ANSWERING THESE QUESTIONS.

TELL THE INTERVIEWER THAT YOU ARE FINISHED WITH THE "CRACK" QUESTIONS.

HEROIN **Answer Sheet #6**

H-1. Have you ever, even once, used heroin?

Yes, I have used heroin . . . . ☐ 1
No, I have never used heroin in my life . . . . ☐ 2

H-2. How old were you the first time you used heroin?

The first time I used heroin, I was . . . . ___ years old
I have never used heroin in my life . . . . ☐ 991

H-3. Think about the entire time since you first used heroin. Altogether, on how many days in your life have you used heroin?

More than 300 days . . . . ☐ 1
At least 101 but not more than 300 days . . . . ☐ 2
At least 12 but not more than 100 days . . . . ☐ 3
At least 3 but not more than 11 days . . . . ☐ 4
At least 1 but not more than 2 days . . . . ☐ 5
I have never used heroin in my life . . . . ☐ 91

H-4. How long has it been since you last used heroin?

Within the past 30 days . . . . ☐ 1
More than 30 days ago but within the past 12 months . . . . ☐ 2
More than 12 months ago but within the past 3 years . . . . ☐ 3
More than 3 years ago . . . . ☐ 4
I have never used heroin in my life . . . . ☐ 91

(PLEASE TURN THE ANSWER SHEET OVER.)

H-5. Now think about the past 12 months. On how many days in the past 12 months did you use heroin?

More than 300 days (every day or almost every day) . . . ☐ 1
At least 201 but not more than 300 days (5 to 6 days a week) . . . ☐ 2
At least 101 but not more than 200 days (3 to 4 days a week) . . . ☐ 3
At least 51 but not more than 100 days (1 to 2 days a week) . . . ☐ 4
At least 25 but not more than 50 days (3 to 4 days a month) . . . ☐ 5
At least 12 but not more than 24 days (1 to 2 days a month) . . . ☐ 6
At least 6 but not more than 11 days (less than one day a month) . . . ☐ 7
At least 3 but not more than 5 days in the past 12 months . . . ☐ 8
At least 1 but not more than 2 days in the past 12 months . . . ☐ 9

IF NONE, MARK ONE BOX FOR BEST ANSWER →
I have used heroin but not during the past 12 months . . . ☐ 93
I have never used heroin in my life . . . ☐ 91

H-6. Think specifically about the past 30 days. During the past 30 days, on how many days did you use heroin?

Number of days I used heroin . . . ☐

IF NONE, MARK ONE BOX FOR BEST ANSWER →
I have used heroin but not during the past 30 days . . . ☐ 93
I have never used heroin in my life . . . ☐ 91

YOU HAVE FINISHED THE QUESTIONS ABOUT HEROIN.

THANK YOU FOR ANSWERING THESE QUESTIONS.

TELL THE INTERVIEWER THAT YOU ARE FINISHED WITH THE HEROIN QUESTIONS.

01

HALLUCINOGENS **Answer Sheet #7**

L-1. As you read the following list of hallucinogens, please mark one box beside each hallucinogen to indicate whether you have ever used that hallucinogen, even once.

		Ever used? YES	NO
a.	LSD ("acid")	☐ 1	☐ 2
b.	PCP ("angel dust," phencyclidine)	☐ 1	☐ 2
c.	Peyote	☐ 1	☐ 2
d.	Mescaline	☐ 1	☐ 2
e.	Psilocybin (mushrooms)	☐ 1	☐ 2
f.	"Ecstasy" (MDMA)	☐ 1	☐ 2
g.	Have you ever used a hallucinogen whose name you don't know?	☐ 1	☐ 2
h.	Have you ever used any other hallucinogens besides the ones listed above?	☐ 1	☐ 2

PLEASE PRINT NAME(S) OF OTHER HALLUCINOGENS BELOW:

____

____

L-2. How old were you the first time you used LSD, PCP, or any other hallucinogen?

The first time I used a hallucinogen, I was ☐ years old
I have never used any hallucinogen in my life ☐ 991

L-3. Think about the entire time since you first used LSD, PCP, or any other hallucinogen. On how many days in your life have you used LSD, PCP, or any other hallucinogen?

More than 300 days ☐ 1
At least 101 but not more than 300 days ☐ 2
At least 12 but not more than 100 days ☐ 3
At least 3 but not more than 11 days ☐ 4
At least 1 but not more than 2 days ☐ 5
I have never used any hallucinogen in my life ☐ 91

(PLEASE TURN THE PAGE.)

L-4. How long has it been since you last used LSD, PCP, or any other hallucinogen?

Within the past 30 days ☐ 1
More than 30 days ago but within the past 12 months ☐ 2
More than 12 months ago but within the past 3 years ☐ 3
More than 3 years ago ☐ 4
I have never used any hallucinogen in my life ☐ 91

L-5. Now think about the past 12 months, from the 12-month reference date through today. On how many days in the past 12 months did you use LSD, PCP, or any other hallucinogen?

More than 300 days (every day or almost every day) ☐ 1
At least 201 but not more than 300 days (5 to 6 days a week) ☐ 2
At least 101 but not more than 200 days (3 to 4 days a week) ☐ 3
At least 51 but not more than 100 days (1 to 2 days a week) ☐ 4
At least 25 but not more than 50 days (3 to 4 days a month) ☐ 5
At least 12 but not more than 24 days (1 to 2 days a month) ☐ 6
At least 6 but not more than 11 days (less than one day a month) ☐ 7
At least 3 but not more than 5 days in the past 12 months ☐ 8
At least 1 but not more than 2 days in the past 12 months ☐ 9

IF NONE, MARK ONE BOX FOR BEST ANSWER →
I have used an hallucinogen but not during the past 12 months ☐ 93
I have never used any hallucinogen in my life ☐ 91

L-6. Think specifically about the past 30 days -- that is, from your 30-day reference date up to and including today. During the past 30 days, on how many days did you use LSD, PCP, or any other hallucinogen?

Number of days I used LSD, PCP, or another hallucinogen ☐

IF NONE, MARK ONE BOX FOR BEST ANSWER →
I have used an hallucinogen but not during the past 30 days ☐ 93
I have never used any hallucinogen in my life ☐ 91

L-7. Now think only about LSD. How long has it been since you last used LSD?

Within the past 30 days ☐ 1
More than 30 days ago but within the past 12 months ☐ 2
More than 12 months ago but within the past 3 years ☐ 3
More than 3 years ago ☐ 4
I have never used LSD in my life ☐ 91

(PLEASE GO TO THE NEXT PAGE.)

L-8. Now think only about PCP. How long has it been since you last used PCP?

Within the past 30 days	☐ 1
More than 30 days ago but within the past 12 months	☐ 2
More than 12 months ago but within the past 3 years	☐ 3
More than 3 years ago	☐ 4
I have never used PCP in my life	☐ 91

YOU HAVE FINISHED THE QUESTIONS ABOUT HALLUCINOGENS.

THANK YOU FOR ANSWERING THESE QUESTIONS.

TELL THE INTERVIEWER THAT YOU ARE FINISHED
WITH THE HALLUCINOGENS QUESTIONS.

INHALANTS

Answer Sheet #8

IN-1. As you read the following list of inhalants, please mark one box beside each type of inhalant to indicate whether you have ever used that kind of inhalant, even once, for kicks or to get high.

		Ever used for kicks or to get high? YES	NO
a.	Amyl nitrite, "poppers," locker room odorizers, or "rush"	☐ 1 . . .	☐ 2
b.	Correction fluid, degreaser, or cleaning fluid	☐ 1 . . .	☐ 2
c.	Gasoline or lighter fluid	☐ 1 . . .	☐ 2
d.	Glue, shoe polish, or toluene	☐ 1 . . .	☐ 2
e.	Halothane, ether, or other anesthetics	☐ 1 . . .	☐ 2
f.	Lacquer thinner or other paint solvents	☐ 1 . . .	☐ 2
g.	Lighter gases (butane, propane)	☐ 1 . . .	☐ 2
h.	Nitrous oxide or "whippets"	☐ 1 . . .	☐ 2
i.	Spray paints	☐ 1 . . .	☐ 2
j.	Other aerosol sprays	☐ 1 . . .	☐ 2
k.	Have you ever used an inhalant whose name you don't know for kicks or to get high?	☐ 1 . . .	☐ 2
l.	Have you ever used any other inhalants, besides those listed above, for kicks or to get high?	☐ 1 . . .	☐ 2

PLEASE PRINT NAME(S) OF OTHER INHALANTS BELOW:

____

____

IN-2. How old were you the first time you used any inhalant for kicks or to get high?

The first time I used any inhalant for kicks or to get high, I was . . . . ____ years old
I have never used any inhalant for kicks or to get high in my life . . . . ☐ 991

IN-3. Think about the entire time since you first used an inhalant for kicks or to get high. Altogether, on how many days in your life have you used an inhalant of any kind?

More than 300 days . . . . ☐ 1
At least 101 but not more than 300 days . . . . ☐ 2
At least 12 but not more than 100 days . . . . ☐ 3
At least 3 but not more than 11 days . . . . ☐ 4
At least 1 but not more than 2 days . . . . ☐ 5
I have never used any inhalant for kicks or to get high in my life . . . . ☐ 91

(PLEASE TURN THE ANSWER SHEET OVER.)

IN-4. How long has it been since you last used any inhalant for kicks or to get high?

Within the past 30 days . . . . ☐ 1
More than 30 days ago but within the past 12 months . . . . ☐ 2
More than 12 months ago but within the past 3 years . . . . ☐ 3
More than 3 years ago . . . . ☐ 4
I have never used any inhalant for kicks or to get high in my life . . . . ☐ 91

IN-5. Now think about the past 12 months. On how many days in the past 12 months did you use an inhalant for kicks or to get high?

More than 300 days (every day or almost every day) . . . . ☐ 1

At least 201 but not more than 300 days (5 to 6 days a week) . . . . ☐ 2

At least 101 but not more than 200 days (3 to 4 days a week) . . . . ☐ 3

At least 51 but not more than 100 days (1 to 2 days a week) . . . . ☐ 4

At least 25 but not more than 50 days (3 to 4 days a month) . . . . ☐ 5

At least 12 but not more than 24 days (1 to 2 days a month) . . . . ☐ 6

At least 6 but not more than 11 days (less than one day a month) . . . . ☐ 7

At least 3 but not more than 5 days in the past 12 months . . . . ☐ 8

At least 1 but not more than 2 days in the past 12 months . . . . ☐ 9

IF NONE, MARK ONE → BOX FOR BEST ANSWER

I have used an inhalant for kicks or to get high but not during the past 12 months . . . . ☐ 93

I have never used any inhalant for kicks or to get high in my life . . . . ☐ 91

IN-6. Think specifically about the past 30 days. During the past 30 days, on how many days did you use any inhalant for kicks or to get high?

Number of days I have used some kind of inhalant for kicks or to get high . . . . ____

IF NONE, MARK ONE → BOX FOR BEST ANSWER

I have used an inhalant for kicks or to get high but not during the past 30 days . . . . ☐ 93

I have never used any inhalant for kicks or to get high in my life . . . . ☐ 91

YOU HAVE FINISHED THE QUESTIONS ABOUT INHALANTS.

THANK YOU FOR ANSWERING THESE QUESTIONS.

TELL THE INTERVIEWER THAT YOU ARE FINISHED WITH THE INHALANTS QUESTIONS.

01

ANALGESICS **Answer Sheet #9**

PK-1. As you read the following list of prescription pain killers, please mark one box beside each pain killer to indicate whether you have ever used that pain killer when it was not prescribed for you, or that you took only for the experience or feeling it caused. Again, we are interested in all kinds of prescription pain killers, in pill or non-pill form.

		Ever used without a prescription or for the experience? **YES**	 **NO**
a.	Codeine	☐ 1	☐ 2
b.	Darvon	☐ 1	☐ 2
c.	Demerol	☐ 1	☐ 2
d.	Dilaudid	☐ 1	☐ 2
e.	Methadone	☐ 1	☐ 2
f.	Morphine	☐ 1	☐ 2
g.	Percodan	☐ 1	☐ 2
h.	Talwin	☐ 1	☐ 2
i.	Tylenol with codeine	☐ 1	☐ 2
j.	Have you ever used a pain killer whose name you don't know that was not prescribed for you, or that you took only for the experience or feeling it caused?	☐ 1	☐ 2
k.	Have you ever used any other pain killer besides the ones listed above, that was not prescribed for you, or that you took only for the experience or feeling it caused?	☐ 1	☐ 2

PLEASE PRINT NAME(S) OF OTHER PAIN KILLERS BELOW:

____

____

If you answered "NO" to each of the items a through k in Question PK-1 above, circle the 91 in the box to the right. Then tell the interviewer that you are finished with this answer sheet. Otherwise, continue with PK-2 below.	91

PK-2. How old were you the first time you used a pain killer that was not prescribed for you, or that you took only for the experience or feeling it caused?

The first time I used a pain killer that was not prescribed for me, or that I took only for the experience or feeling it caused, I was . . . . ☐ years old

(PLEASE TURN THE ANSWER SHEET OVER.)

PK-3. Think about the entire time since you first used a pain killer that was not prescribed for you, or that you took only for the experience or feeling it caused. Altogether, on how many days in your life have you used a pain killer that was not prescribed for you, or that you took only for the experience or feeling it caused?

More than 300 days . . . . ☐ 1
At least 101 but not more than 300 days . . . . ☐ 2
At least 12 but not more than 100 days . . . . ☐ 3
At least 3 but not more than 11 days . . . . ☐ 4
At least 1 but not more than 2 days . . . . ☐ 5

PK-4. How long has it been since you last used a pain killer that was not prescribed for you, or that you took only for the experience or feeling it caused?

Within the past 30 days . . . . ☐ 1
More than 30 days ago but within the past 12 months . . . . ☐ 2
More than 12 months ago but within the past 3 years . . . . ☐ 3
More than 3 years ago . . . . ☐ 4

PK-5. Now think about the past 12 months. On how many days in the past 12 months did you use any pain killer that was not prescribed for you, or that you took only for the experience or feeling it caused?

More than 300 days (every day or almost every day) . . . . ☐ 1

At least 201 but not more than 300 days (5 to 6 days a week) . . . . ☐ 2

At least 101 but not more than 200 days (3 to 4 days a week) . . . . ☐ 3

At least 51 but not more than 100 days (1 to 2 days a week) . . . . ☐ 4

At least 25 but not more than 50 days (3 to 4 days a month) . . . . ☐ 5

At least 12 but not more than 24 days (1 to 2 days a month) . . . . ☐ 6

At least 6 but not more than 11 days (less than one day a month) . . . . ☐ 7

At least 3 but not more than 5 days in the past 12 months . . . . ☐ 8

At least 1 but not more than 2 days in the past 12 months . . . . ☐ 9

I have used a pain killer that was not prescribed for me, or that I took only for the experience or feeling it caused, but not during the past 12 months . . . . ☐ 93

YOU HAVE FINISHED THE QUESTIONS ABOUT ANALGESICS.

THANK YOU FOR ANSWERING THESE QUESTIONS.

TELL THE INTERVIEWER THAT YOU ARE FINISHED WITH THE ANALGESICS QUESTIONS.

TRANQUILIZERS **Answer Sheet #10**

T-1. As you read the following list of prescription tranquilizers, please mark one box beside each tranquilizer to indicate whether you have ever used that tranquilizer when it was not prescribed for you, or that you took only for the experience or feeling it caused. Again, we are interested in all kinds of prescription tranquilizers, in pill or non-pill form.

		Ever used without a prescription or for the experience? **YES**	 **NO**
a.	Atarax	☐ 1	☐ 2
b.	Ativan	☐ 1	☐ 2
c.	Diazepam	☐ 1	☐ 2
d.	Librium	☐ 1	☐ 2
e.	Tranxene	☐ 1	☐ 2
f.	Valium	☐ 1	☐ 2
g.	Xanax	☐ 1	☐ 2
h.	Have you ever used a tranquilizer whose name you don't know that was not prescribed for you, or that you took only for the experience or feeling it caused?	☐ 1	☐ 2
i.	Have you ever used any other tranquilizer besides the ones listed above, that was not prescribed for you, or that you took only for the experience or feeling it caused?	☐ 1	☐ 2

PLEASE PRINT NAME(S) OF OTHER TRANQUILIZERS BELOW:

____

____

If you answered "NO" to each of the items a through i in Question T-1 above, circle the 91 in the box to the right. Then tell the interviewer that you are finished with this answer sheet. Otherwise, continue with T-2 below.	91

T-2. How old were you the first time you used a tranquilizer that was not prescribed for you, or that you took only for the experience or feeling it caused?

The first time I used a tranquilizer that was not prescribed for me, or that I took only for the experience or feeling it caused, I was . . . . ____ years old

(PLEASE TURN THE ANSWER SHEET OVER.)

T-3. Think about the entire time since you first used a tranquilizer that was not prescribed for you, or that you took only for the experience or feeling it caused. Altogether, on how many days in your life have you used a tranquilizer that was not prescribed for you, or that you took only for the experience or feeling it caused?

More than 300 days . . . . ☐ 1
At least 101 but not more than 300 days . . . . ☐ 2
At least 12 but not more than 100 days . . . . ☐ 3
At least 3 but not more than 11 days . . . . ☐ 4
At least 1 but not more than 2 days . . . . ☐ 5

T-4. How long has it been since you last used a tranquilizer that was not prescribed for you, or that you took only for the experience or feeling it caused?

Within the past 30 days . . . . ☐ 1
More than 30 days ago but within the past 12 months . . . . ☐ 2
More than 12 months ago but within the past 3 years . . . . ☐ 3
More than 3 years ago . . . . ☐ 4

T-5. Now think about the past 12 months, from your 12-month reference date through today. On how many days in the past 12 months did you use any tranquilizer that was not prescribed for you, or that you took only for the experience or feeling it caused?

More than 300 days (every day or almost every day) . . . . ☐ 1

At least 201 but not more than 300 days (5 to 6 days a week) . . . . ☐ 2

At least 101 but not more than 200 days (3 to 4 days a week) . . . . ☐ 3

At least 51 but not more than 100 days (1 to 2 days a week) . . . . ☐ 4

At least 25 but not more than 50 days (3 to 4 days a month) . . . . ☐ 5

At least 12 but not more than 24 days (1 to 2 days a month) . . . . ☐ 6

At least 6 but not more than 11 days (less than one day a month) . . . . ☐ 7

At least 3 but not more than 5 days in the past 12 months . . . . ☐ 8

At least 1 but not more than 2 days in the past 12 months . . . . ☐ 9

I have used a tranquilizer that was not prescribed for me, or that I took only for the experience or feeling it caused, but not during the past 12 months . . . . ☐ 93

YOU HAVE FINISHED THE QUESTIONS ABOUT TRANQUILIZERS.

THANK YOU FOR ANSWERING THESE QUESTIONS.

TELL THE INTERVIEWER THAT YOU ARE FINISHED WITH THE TRANQUILIZERS QUESTIONS.

STIMULANTS

Answer Sheet #11

ST-1. As you read the following list of prescription stimulants, please mark one box beside each stimulant to indicate whether you have ever used that stimulant when it was not prescribed for you, or that you took only for the experience or feeling it caused. Again, we are interested in all kinds of prescription stimulants, in pill or non-pill form.

		Ever used without a prescription or for the experience? YES	 NO
a.	Benzedrine	☐ 1	☐ 2
b.	Biphetamine	☐ 1	☐ 2
c.	Dexamyl	☐ 1	☐ 2
d.	Dexedrine	☐ 1	☐ 2
e.	Fastin	☐ 1	☐ 2
f.	Ionamin	☐ 1	☐ 2
g.	Methamphetamine	☐ 1	☐ 2
h.	Methedrine	☐ 1	☐ 2
i.	Preludin	☐ 1	☐ 2
j.	Have you ever used a stimulant whose name you don't know that was not prescribed for you, or that you took only for the experience or feeling it caused?	☐ 1	☐ 2
k.	Have you ever used any other stimulant besides the ones listed above, that was not prescribed for you, or that you took only for the experience or feeling it caused?	☐ 1	☐ 2

PLEASE PRINT NAME(S) OF OTHER STIMULANTS BELOW:

____

____

If you answered "NO" to each of the items a through k in Question ST-1 above, circle the 91 in the box to the right. Then tell the interviewer that you are finished with this answer sheet. Otherwise, continue with ST-2 below.	91

ST-2. How old were you the first time you used a stimulant that was not prescribed for you, or that you took only for the experience or feeling it caused?

The first time I used a stimulant that was not prescribed for me, or that I took only for the experience or feeling it caused, I was .... ____ years old

(PLEASE TURN THE ANSWER SHEET OVER.)

ST-3. Think about the entire time since you first used a stimulant that was not prescribed for you, or that you took only for the experience or feeling it caused. Altogether, on how many days in your life have you used a stimulant that was not prescribed for you, or that you took only for the experience or feeling it caused?

More than 300 days ☐ 1
At least 101 but not more than 300 days ☐ 2
At least 12 but not more than 100 days ☐ 3
At least 3 but not more than 11 days ☐ 4
At least 1 but not more than 2 days ☐ 5

ST-4. How long has it been since you last used a stimulant that was not prescribed for you, or that you took only for the experience or feeling it caused?

Within the past 30 days ☐ 1
More than 30 days ago but within the past 12 months ☐ 2
More than 12 months ago but within the past 3 years ☐ 3
More than 3 years ago ☐ 4

ST-5. Now think about the past 12 months. On how many days in the past 12 months did you use any stimulant that was not prescribed for you, or that you took only for the experience or feeling it caused?

More than 300 days (every day or almost every day) ☐ 1

At least 201 but not more than 300 days (5 to 6 days a week) ☐ 2

At least 101 but not more than 200 days (3 to 4 days a week) ☐ 3

At least 51 but not more than 100 days (1 to 2 days a week) ☐ 4

At least 25 but not more than 50 days (3 to 4 days a month) ☐ 5

At least 12 but not more than 24 days (1 to 2 days a month) ☐ 6

At least 6 but not more than 11 days (less than one day a month) ☐ 7

At least 3 but not more than 5 days in the past 12 months ☐ 8

At least 1 but not more than 2 days in the past 12 months ☐ 9

I have used a stimulant that was not prescribed for me, or that I took only for the experience or feeling it caused, but not during the past 12 months ☐ 93

YOU HAVE FINISHED THE QUESTIONS ABOUT STIMULANTS.

THANK YOU FOR ANSWERING THESE QUESTIONS.

TELL THE INTERVIEWER THAT YOU ARE FINISHED WITH THE STIMULANTS QUESTIONS.

SEDATIVES

Answer Sheet #12

S-1. As you read the following list of prescription sedatives, please mark one box beside each sedative to indicate whether you have ever used that sedative when it was not prescribed for you, or that you took only for the experience or feeling it caused. Again, we are interested in all kinds of prescription sedatives, in pill or non-pill form.

		Ever used without a prescription or for the experience? YES	NO
a.	Dalmane	☐ 1	☐ 2
b.	Halcion	☐ 1	☐ 2
c.	Methaqualone (including Sopor and Quaalude)	☐ 1	☐ 2
d.	Nembutal	☐ 1	☐ 2
e.	Phenobarbital	☐ 1	☐ 2
f.	Placidyl	☐ 1	☐ 2
g.	Seconal	☐ 1	☐ 2
h.	Tuinal	☐ 1	☐ 2
i.	Have you ever used a sedative whose name you don't know that was not prescribed for you, or that you took only for the experience or feeling it caused?	☐ 1	☐ 2
j.	Have you ever used any other sedative besides the ones listed above, that was not prescribed for you, or that you took only for the experience or feeling it caused?	☐ 1	☐ 2

PLEASE PRINT NAME(S) OF OTHER SEDATIVES BELOW:

____

____

If you answered "NO" to each of the items a through j in Question S-1 above, circle the 91 in the box to the right. Then tell the interviewer that you are finished with this answer sheet. Otherwise, continue with S-2 below.	91

S-2. How old were you the first time you used a sedative that was not prescribed for you, or that you took only for the experience or feeling it caused?

The first time I used a sedative that was not prescribed for me, or that I took only for the experience or feeling it caused, I was ☐ years old

(PLEASE TURN THE ANSWER SHEET OVER.)

S-3. Think about the entire time since you first used a sedative that was not prescribed for you, or that you took only for the experience or feeling it caused. Altogether, on how many days in your life have you used a sedative that was not prescribed for you, or that you took only for the experience or feeling it caused?

More than 300 days ☐ 1
At least 101 but not more than 300 days ☐ 2
At least 12 but not more than 100 days ☐ 3
At least 3 but not more than 11 days ☐ 4
At least 1 but not more than 2 days ☐ 5

S-4. How long has it been since you last used a sedative that was not prescribed for you, or that you took only for the experience or feeling it caused?

Within the past 30 days ☐ 1
More than 30 days ago but within the past 12 months ☐ 2
More than 12 months ago but within the past 3 years ☐ 3
More than 3 years ago ☐ 4

S-5. Now think about the past 12 months, from your 12-month reference date through today. On how many days in the past 12 months did you use any sedative that was not prescribed for you, or that you took only for the experience or feeling it caused?

More than 300 days (every day or almost every day) ☐ 1

At least 201 but not more than 300 days (5 to 6 days a week) ☐ 2

At least 101 but not more than 200 days (3 to 4 days a week) ☐ 3

At least 51 but not more than 100 days (1 to 2 days a week) ☐ 4

At least 25 but not more than 50 days (3 to 4 days a month) ☐ 5

At least 12 but not more than 24 days (1 to 2 days a month) ☐ 6

At least 6 but not more than 11 days (less than one day a month) ☐ 7

At least 3 but not more than 5 days in the past 12 months ☐ 8

At least 1 but not more than 2 days in the past 12 months ☐ 9

I have used a sedative that was not prescribed for me, or that I took only for the experience or feeling it caused, but not during the past 12 months ☐ 93

YOU HAVE FINISHED THE QUESTIONS ABOUT SEDATIVES.

THANK YOU FOR ANSWERING THESE QUESTIONS.

TELL THE INTERVIEWER THAT YOU ARE FINISHED WITH THE SEDATIVES QUESTIONS.

SPECIAL DRUGS **Answer Sheet #13**

SD-1. Have you ever, even once, used heroin in any form?

YES, I have used heroin . . ☐ 1 → **SD-2.** Have you ever, even once, smoked heroin?

Yes, I have smoked heroin . . . . ☐ 1

No, I have used heroin, but I never smoked it . . . . ☐ 2

NO, I have never used heroin . . . . ☐ 2

GO TO QUESTION SD-6 AT TOP OF PAGE 2

SD-3. How long has it been since you last smoked heroin?

Within the past 30 days . . . . ☐ 1

More than 30 days ago but within the past 12 months . . . . ☐ 2

More than 12 months ago but within the past 3 years . . . . ☐ 3

More than 3 years ago . . . . ☐ 4

I have used heroin, but I never smoked it . . . . ☐ 93

SD-4. Have you ever, even once, sniffed ("snorted") heroin powder through your nose?

Yes, I have sniffed ("snorted") heroin . . . . . . ☐ 1

No, I have used heroin, but I have never sniffed ("snorted") it . . . . ☐ 2

SD-5. How long has it been since you last sniffed ("snorted") heroin powder through your nose?

Within the past 30 days . . . . ☐ 1

More than 30 days ago but within the past 12 months . . . . ☐ 2

More than 12 months ago but within the past 3 years . . . . ☐ 3

More than 3 years ago . . . . ☐ 4

I have used heroin, but I have never sniffed ("snorted") it . . . . ☐ 93

(PLEASE TURN THE PAGE)

SD-6. Have you ever, even once, used a needle to inject a drug that was not prescribed for you, or that you took only for the experience or feeling it caused?

YES, I have used a needle to inject a drug ...... ☐ 1 ➔ **SD-7.** Have you ever, even once, used a needle to inject cocaine?

Yes, I have used a needle to inject cocaine .... ☐ 1

IF NEVER, MARK ONE BOX FOR BEST ANSWER →
- No, I have used cocaine, but never with a needle .... ☐ 93
- No, I have never used any form of cocaine in my life .... ☐ 91

NO, I have never used a needle to inject a drug . ☐ 2

GO TO BOX A AT BOTTOM OF PAGE 4

SD-8. How long has it been since you last used a needle to inject cocaine?

Within the past 30 days .... ☐ 1

More than 30 days ago but within the past 12 months .... ☐ 2

More than 12 months ago but within the past 3 years .... ☐ 3

More than 3 years ago .... ☐ 4

IF NEVER, MARK ONE BOX FOR BEST ANSWER →
- I have used cocaine, but never with a needle .... ☐ 93
- I have never used any form of cocaine in my life .... ☐ 91

SD-9. Have you ever, even once, used a needle to inject heroin?

Yes, I have used a needle to inject heroin .... ☐ 1

IF NEVER, MARK ONE BOX FOR BEST ANSWER →
- No, I have used heroin, but never with a needle .... ☐ 93
- No, I have never used heroin in my life .... ☐ 91

(PLEASE GO TO THE NEXT PAGE.)

SD-10. How long has it been since you last used a needle to inject heroin?

Within the past 30 days ☐ 1
More than 30 days ago but within the past 12 months ☐ 2
More than 12 months ago but within the past 3 years ☐ 3
More than 3 years ago ☐ 4

IF NEVER, MARK ONE → BOX FOR BEST ANSWER

I have used heroin, but never with a needle ☐ 93
I have never used heroin in my life ☐ 91

SD-11. Have you ever, even once, used a needle to inject a stimulant when it was not prescribed for you, or that you took only for the experience or feeling it caused?

Yes, I have used a needle to inject a stimulant when it was not prescribed for me or only for the experience or feeling it caused ☐ 1

IF NEVER, MARK ONE → BOX FOR BEST ANSWER

No, I have used a stimulant when it was not prescribed for me or only for the experience or feeling it caused, but never with a needle ☐ 93
No, I have never in my life used any stimulant when it was not prescribed for me or only for the experience or feeling it caused ☐ 91

SD-12. How long has it been since you last used a needle to inject any stimulant when it was not prescribed for you, or that you took only for the experience or feeling it caused?

Within the past 30 days ☐ 1
More than 30 days ago but within the past 12 months ☐ 2
More than 12 months ago but within the past 3 years ☐ 3
More than 3 years ago ☐ 4

IF NEVER, MARK ONE → BOX FOR BEST ANSWER

I have used a stimulant when it was not prescribed for me or only for the experience or feeling it caused, but never with a needle ☐ 93
I have never in my life used any stimulant when it was not prescribed for me or only for the experience or feeling it caused ☐ 91

SD-13. Now think about the last time you used a needle for injecting drugs. The last time you used a needle for injecting drugs, were you reusing a needle that you had used before?

Yes, the last time I used a needle for injecting drugs, I reused a needle that I had used before ☐ 1

No, the last time I used a needle for injecting drugs, I did not reuse a needle that I had used before ☐ 2

(PLEASE TURN TO THE NEXT PAGE.)

SD-14. The last time you used a needle for injecting drugs, did you use a needle that you knew or suspected someone else had used before?

Yes, the last time I used a needle for injecting drugs, I used a needle that I knew or suspected someone else had used before . . . . ☐ 1

No, the last time I used a needle for injecting drugs, I did not use a needle that I knew or suspected someone else had used before . . . . ☐ 2

SD-15. The last time you used a needle for injecting drugs, did you use bleach to clean the needle before you used it?

Yes, the last time I used a needle for injecting drugs, I used bleach to clean the needle before I used it . . . . ☐ 1

No, the last time I used a needle for injecting drugs, I did not use bleach to clean the needle before I used it . . . . ☐ 2

SD-16. The last time you used a needle for injecting drugs, did someone else use the needle after you?

Yes, the last time I used a needle for injecting drugs, someone else used the needle after me . . . . ☐ 1

No, no one else used the needle after me the last time I used a needle for injecting drugs . . . . ☐ 2

SD-17. The last time you used a needle for injecting drugs, how did you get the needle? *PLEASE MARK ONLY ONE BOX FOR THE BEST ANSWER.*

I bought the needle from a pharmacy . . . . ☐ 1

I got the needle from a needle exchange . . . . ☐ 2

I bought the needle on the street . . . . ☐ 3

I got the needle in a shooting gallery . . . . ☐ 4

I got the needle some other way . . . . ☐ 5
PLEASE DESCRIBE HOW YOU GOT THE NEEDLE:

____

BOX A	**YOU HAVE FINISHED THE QUESTIONS ABOUT SPECIAL DRUGS.** **THANK YOU FOR ANSWERING THESE QUESTIONS.** **PLEASE TELL THE INTERVIEWER THAT YOU ARE FINISHED WITH THE SPECIAL DRUGS QUESTIONS.**

RISK/AVAILABILITY **Answer Sheet #14**

R-1. How much do you think people risk harming themselves physically and in other ways when they do each of the following activities?

(If you're not sure, mark the box for the amount of risk that comes closest to what you think might be true for that activity. MARK ONE BOX ON EACH LINE.)

How much do people risk harming themselves physically and in other ways when they ...	**NO RISK**	**SLIGHT RISK**	**MODERATE RISK**	**GREAT RISK**
a. Smoke one or more packs of cigarettes per day?	☐ 1	☐ 2	☐ 3	☐ 4
b. Smoke marijuana once a month?	☐ 1	☐ 2	☐ 3	☐ 4
c. Smoke marijuana once or twice a week?	☐ 1	☐ 2	☐ 3	☐ 4
d. Try LSD once or twice?	☐ 1	☐ 2	☐ 3	☐ 4
e. Use LSD once or twice a week?	☐ 1	☐ 2	☐ 3	☐ 4
f. Try heroin once or twice?	☐ 1	☐ 2	☐ 3	☐ 4
g. Use heroin once or twice a week?	☐ 1	☐ 2	☐ 3	☐ 4
h. Use cocaine once a month?	☐ 1	☐ 2	☐ 3	☐ 4
i. Use cocaine once or twice a week?	☐ 1	☐ 2	☐ 3	☐ 4
j. Have four or five drinks nearly every day?	☐ 1	☐ 2	☐ 3	☐ 4
k. Have five or more drinks once or twice a week?	☐ 1	☐ 2	☐ 3	☐ 4

R-2. How difficult do you think it would be for you to get each of the following types of drugs, if you wanted some? (MARK ONE BOX ON EACH LINE.)

How difficult or easy would it be for you to get some ...	**PROBABLY IMPOSSIBLE**	**VERY DIFFICULT**	**FAIRLY DIFFICULT**	**FAIRLY EASY**	**VERY EASY**
a. Marijuana	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
b. LSD	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
c. Cocaine	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
d. "Crack"	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
e. Heroin	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

(PLEASE TURN THE ANSWER SHEET OVER.)

R-3. In the past 30 days, has anyone approached you to sell you an illegal drug?

Yes	☐ 1
No	☐ 2

R-4. How often does each of the following statements apply to you? (MARK ONE BOX ON EACH LINE.)

How often do you ...	**NEVER**	**SELDOM**	**SOME-TIMES**	**ALWAYS**	**I DON'T DRIVE**
a. Get a real kick out of doing things that are a little dangerous?	☐ 1	☐ 2	☐ 3	☐ 4	
b. Like to test yourself by doing something a little risky?	☐ 1	☐ 2	☐ 3	☐ 4	
c. Wear a seatbelt when you ride in the front passenger seat of a car?	☐ 1	☐ 2	☐ 3	☐ 4	
d. Wear a seatbelt when you drive a car?	☐ 1	☐ 2	☐ 3	☐ 4	☐ 91

YOU HAVE FINISHED THE QUESTIONS ABOUT RISK/AVAILABILITY.

THANK YOU FOR ANSWERING THESE QUESTIONS.

TELL THE INTERVIEWER THAT YOU ARE FINISHED WITH THE RISK/AVAILABILITY QUESTIONS.

DRUGS

Answer Sheet #15

All the questions on this answer sheet refer to the past 12 months -- that is, since your 12-month reference date.

DR-1. As you read the following list of types of drugs, please mark one box beside each type of drug to indicate whether you have used that type of drug during the past 12 months.

		Used in past 12 months?	
		YES	**NO**
a.	Cigarettes	☐ 1	☐ 2
b.	Alcohol	☐ 1	☐ 2
c.	Marijuana or hashish	☐ 1	☐ 2
d.	Cocaine (including "crack")	☐ 1	☐ 2
e.	Heroin	☐ 1	☐ 2
f.	Hallucinogens, such as LSD, "acid," PCP, "Ecstasy," psilocybin (mushrooms), mescaline, peyote	☐ 1	☐ 2
g.	Inhalants, such as amyl nitrite, "poppers," nitrous oxide, gasoline or lighter fluids, glue, spray paints, correction fluids	☐ 1	☐ 2
h.	Pain killers, such as codeine, Tylenol with codeine, Darvon, Percodan, Demerol, methadone, opiates	☐ 1	☐ 2
i.	Tranquilizers, such as Valium, Xanax, Librium, Ativan, other antianxiety drugs	☐ 1	☐ 2
j.	Stimulants, such as the methamphetamine, "speed," Dexedrine, Biphetamine, Benzedrine, "uppers," other amphetamines	☐ 1	☐ 2
k.	Sedatives, such as methaqualone, Seconal, Tuinal, Placidyl, barbiturates, sleeping pills, "downers"	☐ 1	☐ 2

If you answered "NO" to each of the items a through k in Question DR-1 above, circle the 93 in the box to the right. Then tell the interviewer that you are finished with this answer sheet. Otherwise, continue with DR-2 below.	93

DR-2. As you read the following list of types of drugs, please mark one box beside each type of drug to indicate whether you had a period of a month or more during the past 12 months when you spent a great deal of time getting the drug, using the drug, or getting over its effects.

		Month or more when great deal of time spent involved with the drug?	
		YES	**NO**
a.	Cigarettes	☐ 1	☐ 2
b.	Alcohol	☐ 1	☐ 2
c.	Marijuana or hashish	☐ 1	☐ 2
d.	Cocaine (including "crack")	☐ 1	☐ 2
e.	Heroin	☐ 1	☐ 2
f.	Hallucinogens, such as LSD, "acid," PCP, "Ecstasy," psilocybin (mushrooms), mescaline, peyote	☐ 1	☐ 2
g.	Inhalants, such as amyl nitrite, "poppers," nitrous oxide, gasoline or lighter fluids, glue, spray paints, correction fluids	☐ 1	☐ 2
h.	Pain killers, such as codeine, Tylenol with codeine, Darvon, Percodan, Demerol, methadone, opiates	☐ 1	☐ 2
i.	Tranquilizers, such as Valium, Xanax, Librium, Ativan, other antianxiety drugs	☐ 1	☐ 2
j.	Stimulants, such as the methamphetamine, "speed," Dexedrine, Biphetamine, Benzedrine, "uppers," other amphetamines	☐ 1	☐ 2
k.	Sedatives, such as methaqualone, Seconal, Tuinal, Placidyl, barbiturates, sleeping pills, "downers"	☐ 1	☐ 2

(PLEASE TURN THE PAGE.)

DR-3. As you read the following list of types of drugs, please mark one box beside each type of drug to indicate whether you have used that kind of drug much more often or in larger amounts than you intended to during the past 12 months.

		Used more often or in larger amounts?	
		YES	**NO**
a.	Cigarettes	☐ 1	☐ 2
b.	Alcohol	☐ 1	☐ 2
c.	Marijuana or hashish	☐ 1	☐ 2
d.	Cocaine (including "crack")	☐ 1	☐ 2
e.	Heroin	☐ 1	☐ 2
f.	Hallucinogens, such as LSD, "acid," PCP, "Ecstasy," psilocybin (mushrooms), mescaline, peyote	☐ 1	☐ 2
g.	Inhalants, such as amyl nitrite, "poppers," nitrous oxide, gasoline or lighter fluids, glue, spray paints, correction fluids	☐ 1	☐ 2
h.	Pain killers, such as codeine, Tylenol with codeine, Darvon, Percodan, Demerol, methadone, opiates	☐ 1	☐ 2
i.	Tranquilizers, such as Valium, Xanax, Librium, Ativan, other antianxiety drugs	☐ 1	☐ 2
j.	Stimulants, such as the methamphetamine, "speed," Dexedrine, Biphetamine, Benzedrine, "uppers," other amphetamines	☐ 1	☐ 2
k.	Sedatives, such as methaqualone, Seconal, Tuinal, Placidyl, barbiturates, sleeping pills, "downers"	☐ 1	☐ 2

DR-4. As you read the following list of types of drugs, please mark one box beside each type of drug to indicate whether you have built up a tolerance for the drug so that the same amount of the drug had less effect than before during the past 12 months.

		Built up a tolerance?	
		YES	**NO**
a.	Cigarettes	☐ 1	☐ 2
b.	Alcohol	☐ 1	☐ 2
c.	Marijuana or hashish	☐ 1	☐ 2
d.	Cocaine (including "crack")	☐ 1	☐ 2
e.	Heroin	☐ 1	☐ 2
f.	Hallucinogens, such as LSD, "acid," PCP, "Ecstasy," psilocybin (mushrooms), mescaline, peyote	☐ 1	☐ 2
g.	Inhalants, such as amyl nitrite, "poppers," nitrous oxide, gasoline or lighter fluids, glue, spray paints, correction fluids	☐ 1	☐ 2
h.	Pain killers, such as codeine, Tylenol with codeine, Darvon, Percodan, Demerol, methadone, opiates	☐ 1	☐ 2
i.	Tranquilizers, such as Valium, Xanax, Librium, Ativan, other antianxiety drugs	☐ 1	☐ 2
j.	Stimulants, such as the methamphetamine, "speed," Dexedrine, Biphetamine, Benzedrine, "uppers," other amphetamines	☐ 1	☐ 2
k.	Sedatives, such as methaqualone, Seconal, Tuinal, Placidyl, barbiturates, sleeping pills, "downers"	☐ 1	☐ 2

(PLEASE GO TO THE NEXT PAGE.)

DR-5. As you read the following list of types of drugs, please mark one box beside each type of drug to indicate whether your use of that drug has often kept you from working, going to school, taking care of children, or engaging in recreational activities during the past 12 months.

		Important activities reduced or given up?	
		YES	**NO**
a.	Cigarettes	☐ 1	☐ 2
b.	Alcohol	☐ 1	☐ 2
c.	Marijuana or hashish	☐ 1	☐ 2
d.	Cocaine (including "crack")	☐ 1	☐ 2
e.	Heroin	☐ 1	☐ 2
f.	Hallucinogens, such as LSD, "acid," PCP, "Ecstasy," psilocybin (mushrooms), mescaline, peyote	☐ 1	☐ 2
g.	Inhalants, such as amyl nitrite, "poppers," nitrous oxide, gasoline or lighter fluids, glue, spray paints, correction fluids	☐ 1	☐ 2
h.	Pain killers, such as codeine, Tylenol with codeine, Darvon, Percodan, Demerol, methadone, opiates	☐ 1	☐ 2
i.	Tranquilizers, such as Valium, Xanax, Librium, Ativan, other antianxiety drugs	☐ 1	☐ 2
j.	Stimulants, such as the methamphetamine, "speed," Dexedrine, Biphetamine, Benzedrine, "uppers," other amphetamines	☐ 1	☐ 2
k.	Sedatives, such as methaqualone, Seconal, Tuinal, Placidyl, barbiturates, sleeping pills, "downers"	☐ 1	☐ 2

DR-6. As you read the following list of types of drugs, please mark one box beside each type of drug to indicate whether your use of the drug has caused you to have any emotional or psychological problems -- such as feeling uninterested in things, feeling depressed, feeling suspicious of people, feeling paranoid, or having strange ideas during the past 12 months.

		Had emotional problems?	
		YES	**NO**
a.	Cigarettes	☐ 1	☐ 2
b.	Alcohol	☐ 1	☐ 2
c.	Marijuana or hashish	☐ 1	☐ 2
d.	Cocaine (including "crack")	☐ 1	☐ 2
e.	Heroin	☐ 1	☐ 2
f.	Hallucinogens, such as LSD, "acid," PCP, "Ecstasy," psilocybin (mushrooms), mescaline, peyote	☐ 1	☐ 2
g.	Inhalants, such as amyl nitrite, "poppers," nitrous oxide, gasoline or lighter fluids, glue, spray paints, correction fluids	☐ 1	☐ 2
h.	Pain killers, such as codeine, Tylenol with codeine, Darvon, Percodan, Demerol, methadone, opiates	☐ 1	☐ 2
i.	Tranquilizers, such as Valium, Xanax, Librium, Ativan, other antianxiety drugs	☐ 1	☐ 2
j.	Stimulants, such as the methamphetamine, "speed," Dexedrine, Biphetamine, Benzedrine, "uppers," other amphetamines	☐ 1	☐ 2
k.	Sedatives, such as methaqualone, Seconal, Tuinal, Placidyl, barbiturates, sleeping pills, "downers"	☐ 1	☐ 2

(PLEASE TURN THE PAGE.)

DR-7. As you read the following list of types of drugs, please mark one box beside each type of drug to indicate whether your use of that drug has caused you any health problems -- such as liver disease, stomach disease, pancreatitis, feet tingling, numbness, memory problems, an accidental overdose, a persistent cough, a seizure or fit, hepatitis, or abscesses during the past 12 months.

		Had physical problems?	
		YES	**NO**
a.	Cigarettes	☐ 1	☐ 2
b.	Alcohol	☐ 1	☐ 2
c.	Marijuana or hashish	☐ 1	☐ 2
d.	Cocaine (including "crack")	☐ 1	☐ 2
e.	Heroin	☐ 1	☐ 2
f.	Hallucinogens, such as LSD, "acid," PCP, "Ecstasy," psilocybin (mushrooms), mescaline, peyote	☐ 1	☐ 2
g.	Inhalants, such as amyl nitrite, "poppers," nitrous oxide, gasoline or lighter fluids, glue, spray paints, correction fluids	☐ 1	☐ 2
h.	Pain killers, such as codeine, Tylenol with codeine, Darvon, Percodan, Demerol, methadone, opiates	☐ 1	☐ 2
i.	Tranquilizers, such as Valium, Xanax, Librium, Ativan, other antianxiety drugs	☐ 1	☐ 2
j.	Stimulants, such as the methamphetamine, "speed," Dexedrine, Biphetamine, Benzedrine, "uppers," other amphetamines	☐ 1	☐ 2
k.	Sedatives, such as methaqualone, Seconal, Tuinal, Placidyl, barbiturates, sleeping pills, "downers"	☐ 1	☐ 2

DR-8. As you read the following list of types of drugs, please mark one box beside each type of drug to indicate whether, during the past 12 months, you have wanted or tried to stop or cut down on your use of that drug but found that you couldn't.

		Wanted or tried to stop or cut down on use?	
		YES	**NO**
a.	Cigarettes	☐ 1	☐ 2
b.	Alcohol	☐ 1	☐ 2
c.	Marijuana or hashish	☐ 1	☐ 2
d.	Cocaine (including "crack")	☐ 1	☐ 2
e.	Heroin	☐ 1	☐ 2
f.	Hallucinogens, such as LSD, "acid," PCP, "Ecstasy," psilocybin (mushrooms), mescaline, peyote	☐ 1	☐ 2
g.	Inhalants, such as amyl nitrite, "poppers," nitrous oxide, gasoline or lighter fluids, glue, spray paints, correction fluids	☐ 1	☐ 2
h.	Pain killers, such as codeine, Tylenol with codeine, Darvon, Percodan, Demerol, methadone, opiates	☐ 1	☐ 2
i.	Tranquilizers, such as Valium, Xanax, Librium, Ativan, other antianxiety drugs	☐ 1	☐ 2
j.	Stimulants, such as the methamphetamine, "speed," Dexedrine, Biphetamine, Benzedrine, "uppers," other amphetamines	☐ 1	☐ 2
k.	Sedatives, such as methaqualone, Seconal, Tuinal, Placidyl, barbiturates, sleeping pills, "downers"	☐ 1	☐ 2

YOU HAVE FINISHED THE QUESTIONS ABOUT DRUGS.

THANK YOU FOR ANSWERING THESE QUESTIONS.

TELL THE INTERVIEWER THAT YOU ARE FINISHED WITH THE DRUGS QUESTIONS.

These questions are about treatment or counseling for drug or alcohol use, and encounters with the police or someone connected with the courts.

SP-1. At any time during the past 12 months did you receive treatment or counseling for your drug or alcohol use?

YES, I have received treatment or counseling during the past 12 months . . . . ☐ 1

GO TO QUESTION SP-6 AT TOP OF PAGE 4

NO, I have not received treatment or counseling during the past 12 months . . . . ☐ 2

SP-2. At any time during the past 12 months did you need treatment or counseling for your drug or alcohol use?

YES, I needed treatment or counseling during the past 12 months . . . . ☐ 1

GO TO QUESTION SP-3 AT TOP OF PAGE 2

NO, I did not need treatment or counseling during the past 12 months . . . . ☐ 2

GO TO QUESTION SP-6 AT TOP OF PAGE 4

SP-3. As you read the following list of drugs, please mark one box beside each type of drug to indicate whether you needed treatment or counseling for your use of that kind of drug during the past 12 months.

	In past 12 months, needed treatment for this drug? YES	 NO
a. Alcohol	☐ 1	☐ 2
b. Marijuana or hashish	☐ 1	☐ 2
c. Cocaine or "crack"	☐ 1	☐ 2
d. Heroin	☐ 1	☐ 2
e. Hallucinogens	☐ 1	☐ 2
f. Inhalants	☐ 1	☐ 2
g. Prescription pain killers or analgesics	☐ 1	☐ 2
h. Prescription tranquilizers	☐ 1	☐ 2
i. Prescription stimulants	☐ 1	☐ 2
j. Prescription sedatives	☐ 1	☐ 2
k. I needed treatment for use of some other drug(s) *PLEASE PRINT NAME(S) BELOW:* ______________________________	☐ 1	☐ 2

SP-4. During the past 12 months, did you take any steps to obtain treatment or counseling for your drug or alcohol use?

Yes, during the past 12 months, I took steps to obtain treatment or counseling ..... ☐ 1

No, during the past 12 months, I did not take steps to obtain treatment or counseling . ☐ 2

(PLEASE GO TO THE NEXT PAGE.)

SP-5. As you read the following list of reasons, please mark one box beside each reason to indicate whether it explains why you did not obtain treatment or counseling for your drug or alcohol use during the past 12 months.

Reason for not obtaining treatment or counseling?

	YES	NO
a. I had no transportation to the treatment or counseling programs	☐ 1	☐ 2
b. The nearest treatment or counseling programs were too far away	☐ 1	☐ 2
c. The treatment or counseling programs' hours were not convenient	☐ 1	☐ 2
d. There were no openings in the treatment or counseling programs	☐ 1	☐ 2
e. The programs didn't offer the type of treatment or counseling I wanted	☐ 1	☐ 2
f. I had no health care coverage, and I couldn't afford to pay for the treatment or counseling programs	☐ 1	☐ 2
g. I did have health care coverage, but it didn't cover these types of treatment or counseling programs	☐ 1	☐ 2
h. I did have health care coverage for these types of programs, but it didn't cover the full cost of the programs	☐ 1	☐ 2
i. The programs' facilities were not accessible to the handicapped	☐ 1	☐ 2
j. Participation in the program was too complicated	☐ 1	☐ 2
k. The programs' counselors didn't meet my ethnic or language needs	☐ 1	☐ 2
l. The programs did not offer special services that I needed, such as medical or mental health care, housing, employment counseling, child care, etc.	☐ 1	☐ 2
m. I did not obtain treatment or counseling for some other reason(s)	☐ 1	☐ 2

PLEASE SPECIFY REASON(S) BELOW:

____

(PLEASE GO TO THE NEXT PAGE.)

SP-6. **Not counting minor traffic violations, have you ever been arrested and booked for breaking the law?** *Being "booked" means that you were taken into custody and processed by the police or by someone connected with the courts, even if you were then released.*

YES, I have been arrested and booked for breaking a law .... ☐ 1 → **SP-7.** Not counting minor traffic violations, how many times during the past 12 months have you been arrested and booked for breaking a law? *RECORD NUMBER OF TIMES OR MARK THE BOX:*

Number of times arrested and booked in the past 12 months .... ☐☐ times → SP-8

I have not been arrested and booked in the past 12 months ...... ☐ 93 → GO TO QUESTION SP-9 AT TOP OF PAGE 5

NO, I have never been arrested and booked for breaking a law .. ☐ 2 → GO TO QUESTION SP-9 AT TOP OF PAGE 5

GO TO QUESTION SP-9 AT TOP OF PAGE 5

SP-8. Below is a list of offenses that are against the law. As you read the list, please mark one box beside each offense to indicate whether you were arrested and booked for that offense in the past 12 months. *For this question, do not include minor traffic violations.*

		In past 12 months, arrested and booked?	
		YES	**NO**
a.	Larceny or theft	☐ 1	☐ 2
b.	Burglary or breaking and entering	☐ 1	☐ 2
c.	Aggravated assault	☐ 1	☐ 2
d.	Other assault, such as simple assault or battery	☐ 1	☐ 2
e.	Motor vehicle theft	☐ 1	☐ 2
f.	Robbery	☐ 1	☐ 2
g.	Forcible rape	☐ 1	☐ 2
h.	Murder, homicide, or nonnegligent manslaughter	☐ 1	☐ 2
i.	Arson	☐ 1	☐ 2
j.	Driving under the influence	☐ 1	☐ 2
k.	Drunkenness or other liquor law violation	☐ 1	☐ 2
l.	Possession or sale of drugs	☐ 1	☐ 2
m.	Prostitution or commercialized sex	☐ 1	☐ 2
n.	Other property offenses, such as fraud, possessing stolen goods, or vandalism	☐ 1	☐ 2
o.	Other offenses	☐ 1	☐ 2

(PLEASE DESCRIBE): ________________________________

(PLEASE TURN TO THE NEXT PAGE.)

SP-9. Were you on probation at any time during the past 12 months?

Yes, I was on probation at some time during the past 12 months . . . . ☐ 1
No, I was not on probation during the past 12 months . . . . ☐ 2

SP-10. Were you on parole at any time during the past 12 months?

Yes, I was on parole at some time during the past 12 months . . . . ☐ 1
No, I was not on parole during the past 12 months . . . . ☐ 2

SP-11. This question deals with activities that may be against the law. Read each item, then mark one box beside each question to indicate whether you have done the activity during the past 12 months.

	Done during the past 12 months? **YES**	 **NO**
a. During the past 12 months, I drove a vehicle while I was under the influence of a combination of alcohol and illegal drugs used together . . .	☐ 1	. . ☐ 2
b. During the past 12 months, I drove a vehicle while I was under the influence of alcohol	☐ 1	. . ☐ 2
c. During the past 12 months, I drove a vehicle while I was under the influence of illegal drugs	☐ 1	. . ☐ 2

YOU HAVE FINISHED THE SPECIAL TOPICS QUESTIONS.

THANK YOU FOR ANSWERING THESE QUESTIONS.

TELL THE INTERVIEWER THAT YOU ARE FINISHED
WITH THE SPECIAL TOPICS QUESTIONS.

TREATMENT

Answer Sheet #17

This set of questions deals with treatment for alcohol and drug problems, not including cigarettes. For these questions we are interested in treatment designed to help you reduce or stop your alcohol or drug use and also treatment for medical problems associated with your alcohol or drug use.

TX-1. Have you ever **received** treatment or counseling for your use of alcohol or any drug, not counting cigarettes?

YES, I have received treatment for my use of alcohol or some drug . . . . ☐ 1 → **TX-2.**

NO, I have never received treatment for my use of alcohol or any drug . . . . ☐ 2

GO TO BOX A AT BOTTOM OF PAGE 6

TX-2. How many times in your life have you **started into** treatment or counseling for your use of alcohol or any drug, not counting cigarettes?

I have started into treatment or counseling for my alcohol or drug use . . . . ___ times.

TX-3. During the past 12 months have you **received** treatment or counseling for your use of alcohol or any drug, not counting cigarettes?

YES, I have received treatment or counseling during the past 12 months . . . . ☐ 1 → TX-4

NO, I have not received treatment or counseling during the past 12 months . . . . ☐ 2

GO TO QUESTION TX-9 AT TOP OF PAGE 4

TX-4. How many times in the past 12 months have you **started into** treatment or counseling for your use of alcohol or any drug, not counting cigarettes?

In the past 12 months I have started into treatment or counseling for my alcohol or drug use . . . . ___ times.

(PLEASE GO TO THE NEXT PAGE.)

TX-5. As you read the following list of places where treatment for ALCOHOL USE is offered, please mark one box beside each type of treatment place to indicate whether you have received treatment for your ALCOHOL USE in that type of facility during the past 12 months.

In past 12 months,
got treatment here for
your alcohol use?

		YES	NO
a.	A hospital overnight as an inpatient	☐ 1	☐ 2
b.	A residential drug or alcohol rehabilitation facility (overnight)	☐ 1	☐ 2
c.	A drug or alcohol rehabilitation facility as an outpatient	☐ 1	☐ 2
d.	A mental health center or facility as an outpatient	☐ 1	☐ 2
e.	An emergency room	☐ 1	☐ 2
f.	A private doctor's office	☐ 1	☐ 2
g.	A prison or jail	☐ 1	☐ 2
h.	A self-help group	☐ 1	☐ 2
i.	I received treatment in some other place.	☐ 1	☐ 2

PLEASE DESCRIBE BELOW THIS OTHER PLACE:

____

TX-6. As you read the following list of places where treatment for DRUG USE is offered, please mark one box beside each type of treatment place to indicate whether you have received treatment for your use of OTHER DRUGS not counting cigarettes or alcohol in that type of facility during the past 12 months.

In past 12 months,
got treatment here
for your drug use?

		YES	NO
a.	A hospital overnight as an inpatient	☐ 1	☐ 2
b.	A residential drug or alcohol rehabilitation facility (overnight)	☐ 1	☐ 2
c.	A drug or alcohol rehabilitation facility as an outpatient	☐ 1	☐ 2
d.	A mental health center or facility as an outpatient	☐ 1	☐ 2
e.	An emergency room	☐ 1	☐ 2
f.	A private doctor's office	☐ 1	☐ 2
g.	A prison or jail	☐ 1	☐ 2
h.	A self-help group	☐ 1	☐ 2
i.	I received treatment in some other place.	☐ 1	☐ 2

PLEASE DESCRIBE BELOW THIS OTHER PLACE:

____

(PLEASE GO TO THE NEXT PAGE.)

TX-7. As you read the following list of sources of payment for treatment, please mark one box beside each source to indicate whether ANY treatment or counseling that you marked in questions TX-5 or TX-6 was paid for by that source, even if it only paid part of the cost.

	Source paid for any treatment in past 12 months? **YES**	 **NO**
a. Private health insurance paid for treatment I received	☐ 1	☐ 2
b. Medicare paid for treatment I received	☐ 1	☐ 2
c. Medicaid paid for treatment I received	☐ 1	☐ 2
d. A public assistance program other than Medicaid paid for treatment I received	☐ 1	☐ 2
e. I used my own savings or earnings to pay for treatment I received	☐ 1	☐ 2
f. Family members paid for treatment I received	☐ 1	☐ 2
g. Treatment I received was ordered and paid for by the courts	☐ 1	☐ 2
h. Treatment I received was paid for by CHAMPUS or TRICARE, CHAMPVA, the VA, or some other military health care	☐ 1	☐ 2
i. My employer paid for treatment I received	☐ 1	☐ 2
j. Treatment I received was free	☐ 1	☐ 2
k. Treatment I received was paid for by some other source. *PLEASE DESCRIBE BELOW:*	☐ 1	☐ 2

____

TX-8. During the past 12 months, how many times did you visit a hospital emergency room to receive treatment related to your use of cocaine, heroin, marijuana, or other illegal drugs?

During the past 12 months, the number of times I received treatment for my use of some illegal drug in a hospital emergency room was .... ☐ times.

(PLEASE TURN THE PAGE.)

The rest of the questions on this answer sheet refer to treatment for your use of alcohol OR drugs.

TX-9. How long has it been since you last received treatment or counseling for your alcohol or drug use, not counting cigarettes?

Within the past 30 days ☐ 1
More than 30 days ago but within the past 12 months ☐ 2
More than 12 months ago but within the past 3 years ☐ 3
More than 3 years ago ☐ 4

TX-10. What was the primary place where you received treatment the last time you started treatment for your alcohol or other drug use, not counting cigarettes? *MARK ONLY ONE BOX FOR THE BEST ANSWER.*

A hospital overnight as an inpatient ☐ 1
A residential drug or alcohol rehabilitation facility (overnight) ☐ 2
A drug or alcohol rehabilitation facility as an outpatient ☐ 3
A mental health center or facility as an outpatient ☐ 4
An emergency room ☐ 5
A private doctor's office ☐ 6
A prison or jail ☐ 7
A self-help group ☐ 8
I received treatment in some other place. ☐ 9
PLEASE DESCRIBE BELOW THIS OTHER PLACE:

____

TX-11. As you read the following list of drugs, please mark one box beside each type of drug to indicate whether you received treatment or counseling for your use of that kind of drug the last time you entered treatment.

	Got treatment for this drug?	
	YES	NO
a. Alcohol	☐ 1	☐ 2
b. Marijuana or hashish	☐ 1	☐ 2
c. Cocaine or "crack"	☐ 1	☐ 2
d. Heroin	☐ 1	☐ 2
e. Hallucinogens	☐ 1	☐ 2
f. Inhalants	☐ 1	☐ 2
g. Prescription pain killers or analgesics	☐ 1	☐ 2
h. Prescription tranquilizers	☐ 1	☐ 2
i. Prescription stimulants	☐ 1	☐ 2
j. Prescription sedatives	☐ 1	☐ 2
k. I received treatment for use of some other drug(s).	☐ 1	☐ 2

PLEASE PRINT NAME(S) BELOW:

____

(PLEASE GO TO THE NEXT PAGE.)

TX-12. What was the primary drug you entered treatment for during the last time you were treated?

Write name of primary drug: ______________________________

TX-13. What was the outcome of the primary treatment or counseling at the place you marked in question TX-10? *PLEASE MARK ONLY ONE BOX FOR THE BEST ANSWER.*

I am still in treatment . . . . ☐ 1
I successfully completed treatment . . . . ☐ 2
I left because I had a problem with the program . . . . ☐ 3
I left because I couldn't afford to continue treatment . . . . ☐ 4
I left because my family needed me . . . . ☐ 5
I left because I began using drug(s) again . . . . ☐ 6
My last treatment had some other outcome. . . . . ☐ 7
PLEASE DESCRIBE THE OUTCOME BELOW:

____

TX-14. How long did you stay in treatment for your alcohol or drug use during your last treatment at the place you marked in question TX-10? If you are currently in treatment for alcohol or drug use, how long have you been in treatment so far? Please fill in either the number of days or the number of months below.

I was in treatment for . . . . ☐ days

OR:

I was in treatment for . . . . ☐ months

TX-15. As you read the following list of sources of payment for treatment, please mark one box beside each source to indicate whether your last treatment or counseling that you marked in question TX-10 for alcohol or drug use was paid for by that source, even if it only paid part of the cost.

	Source paid for last treatment?	
	YES	**NO**
a. Private health insurance paid for the last treatment I received	☐ 1	☐ 2
b. Medicare paid for the last treatment I received	☐ 1	☐ 2
c. Medicaid paid for the last treatment I received	☐ 1	☐ 2
d. A public assistance program other than Medicaid paid for the last treatment I received	☐ 1	☐ 2
e. I used my own savings or earnings to pay for the last treatment I received	☐ 1	☐ 2
f. Family members paid for the last treatment I received	☐ 1	☐ 2
g. The last treatment I received was ordered and paid for by the courts	☐ 1	☐ 2
h. The last treatment I received was paid for by CHAMPUS or TRICARE, CHAMPVA, the VA, or some other military health care	☐ 1	☐ 2
i. My employer paid for the last treatment I received	☐ 1	☐ 2
j. The last treatment I received was free	☐ 1	☐ 2
k. My last treatment was paid for by some other source. *PLEASE DESCRIBE BELOW:*	☐ 1	☐ 2

____

(PLEASE TURN THE PAGE.)

TX-16. Were you enrolled in a treatment program for your alcohol or drug use (whether or not it was your last treatment episode) on October 1, 1997? For this question, please include only treatment received at a hospital, drug rehabilitation facility, or mental health center.

YES, I was enrolled in a treatment program for my alcohol or drug use on October 1, 1997 . . . . ☐ 1
NO, I was not enrolled in a treatment program for my alcohol or drug use on October 1, 1997 . . . . ☐ 2

BOX A	**YOU HAVE FINISHED THE QUESTIONS ABOUT TREATMENT.** **THANK YOU FOR ANSWERING THESE QUESTIONS.** **PLEASE TELL THE INTERVIEWER THAT YOU ARE FINISHED WITH THE TREATMENT QUESTIONS.**

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DRUG EXPERIENCES **Answer Sheet #18**

DE-1. Think about the month in which your 12-month reference date begins.

	YES	NO
a. Did you use marijuana or hashish at any time during that month in 1997?	☐ 1	☐ 2
b. Did you use cocaine at any time during that month in 1997?	☐ 1	☐ 2

DE-2. Have you ever smoked a cigar, even one or two puffs? Please include any cigarillos you may have smoked.

YES, I have smoked at least a puff or two from a cigar .... ☐ 1 →

NO, I have never smoked a cigar in my life .... ☐ 2

DE-3. Have you smoked at least 50 cigars in your lifetime?

Yes, I have smoked at least 50 cigars .... ☐ 1

No, I have not smoked 50 cigars in my life .... ☐ 2

DE-4. Now think about the past 30 days, from your 30-day reference date through today. During the past 30 days, on how many days did you smoke a cigar?

Number of days I smoked a cigar .... └──┘

I have smoked a cigar but not during the past 30 days ..... ☐ 93

YOU HAVE FINISHED THE QUESTIONS ABOUT DRUG EXPERIENCES.

THANK YOU FOR ANSWERING THESE QUESTIONS.

TELL THE INTERVIEWER THAT YOU ARE FINISHED WITH THE DRUG EXPERIENCES QUESTIONS.

YOUTH EXPERIENCES

Answer Sheet # 19

The first three questions are about the neighborhood where you currently live.

YE-1. How long have you lived in this neighborhood?

Less than one year . . . . ☐ 1
At least 1 year but less than 3 years . . . . ☐ 2
At least 3 years but less than 5 years . . . . ☐ 3
At least 5 years but less than 10 years . . . . ☐ 4
10 or more years . . . . ☐ 5

YE-2. How much do you agree or disagree with each of the following statements about your neighborhood? *PLEASE MARK ONLY ONE BOX FOR EACH ITEM.*

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
a. There is a lot of crime in my neighborhood.	☐ 1	☐ 2	☐ 3	☐ 4
b. A lot of drug selling goes on in my neighborhood.	☐ 1	☐ 2	☐ 3	☐ 4
c. People in my neighborhood often help each other out	☐ 1	☐ 2	☐ 3	☐ 4
d. Family violence is a big problem in my neighborhood	☐ 1	☐ 2	☐ 3	☐ 4
e. Most people who live in my neighborhood are from the same racial or ethnic group.	☐ 1	☐ 2	☐ 3	☐ 4
f. There is conflict or tension between people from different racial or ethnic groups in my neighborhood	☐ 1	☐ 2	☐ 3	☐ 4
g. There are lots of street fights in my neighborhood.	☐ 1	☐ 2	☐ 3	☐ 4
h. There are many empty or abandoned buildings in my neighborhood.	☐ 1	☐ 2	☐ 3	☐ 4
i. People in my neighborhood often visit in each other's homes.	☐ 1	☐ 2	☐ 3	☐ 4
j. There is a lot of graffiti in my neighborhood.	☐ 1	☐ 2	☐ 3	☐ 4
k. My neighborhood is very safe.	☐ 1	☐ 2	☐ 3	☐ 4
l. People move in and out of my neighborhood often.	☐ 1	☐ 2	☐ 3	☐ 4

YE-3. How do you think most adults in your neighborhood would feel about you doing each of the things listed below? *PLEASE MARK ONLY ONE BOX FOR EACH ITEM.*

	Neither Approve nor Disapprove	Somewhat Disapprove	Strongly Disapprove
a. Smoking one or more packs of cigarettes per day.	☐ 1	☐ 2	☐ 3
b. Trying marijuana or hashish once or twice.	☐ 1	☐ 2	☐ 3
c. Using marijuana or hashish once a month or more.	☐ 1	☐ 2	☐ 3
d. Having one or two drinks of an alcoholic beverage nearly every day.	☐ 1	☐ 2	☐ 3

YE-4. How many times have you moved in the past 5 years?

In the past 5 years, I have moved . . . . |____| times

(PLEASE TURN THE PAGE.)

YE-5. How many of the adults that you know personally would you say do each of the things listed below? *PLEASE MARK ONLY ONE BOX FOR EACH ITEM.*

	None of them	**A few of them**	**Most of them**	**All of them**
a. Smoke cigarettes.	☐ 1	☐ 2	☐ 3	☐ 4
b. Use marijuana or hashish.	☐ 1	☐ 2	☐ 3	☐ 4
c. Drink alcoholic beverages.	☐ 1	☐ 2	☐ 3	☐ 4
d. Get drunk at least once a week.	☐ 1	☐ 2	☐ 3	☐ 4

YE-6. The next three questions ask about your parents. By "parents," we mean either your biological parents, adoptive parents, stepparents, or adult guardians who live in your household. During the past 12 months, how often did your parents do the following things? *PLEASE MARK ONLY ONE BOX FOR EACH ITEM.*

	Always	**Sometimes**	**Seldom**	**Never**
a. Check on whether you had done your homework.	☐ 1	☐ 2	☐ 3	☐ 4
b. Provide help with your homework when you needed it.	☐ 1	☐ 2	☐ 3	☐ 4
c. Made you do work or chores around the house.	☐ 1	☐ 2	☐ 3	☐ 4
d. Limit the amount of time you watched TV.	☐ 1	☐ 2	☐ 3	☐ 4
e. Limit the amount of time you went out with friends on school nights.	☐ 1	☐ 2	☐ 3	☐ 4
f. Let you know when you'd done a good job.	☐ 1	☐ 2	☐ 3	☐ 4
g. Tell you they're proud of you for something you'd done.	☐ 1	☐ 2	☐ 3	☐ 4

YE-7. How do you think your parents would feel about you doing each of the things listed below? *PLEASE MARK ONLY ONE BOX FOR EACH ITEM.*

	Neither Approve nor Disapprove	**Somewhat Disapprove**	**Strongly Disapprove**
a. Smoking one or more packs of cigarettes per day.	☐ 1	☐ 2	☐ 3
b. Trying marijuana or hashish once or twice.	☐ 1	☐ 2	☐ 3
c. Using marijuana or hashish once a month or more.	☐ 1	☐ 2	☐ 3
d. Having one or two drinks of an alcoholic beverage nearly every day.	☐ 1	☐ 2	☐ 3

YE-8. Think about the past 12 months, that is, from your 12-month reference date through today. During the past 12 months, have you talked with at least one of your parents about the dangers of tobacco, alcohol or drug use?

Yes	☐ 1
No	☐ 2

(PLEASE GO TO THE NEXT PAGE.)

YE-9. Have you been enrolled in any type of school at any time during the past 12 months?

YES, I have been enrolled in school during the past 12 months . . . . ☐ 1 → **YE-10.**

NO, I was not enrolled in school at any time during the past 12 months . . . . ☐ 2

GO TO QUESTION YE-18 AT THE TOP OF PAGE 5.

YE-10. Which of the following statements best describes how you felt overall about going to school during the past 12 months? *PLEASE MARK ONLY ONE BOX FOR THE BEST ANSWER.*

I liked going to school a lot. . . . . ☐ 1
I kind of liked going to school. . . . . ☐ 2
I didn't like going to school very much. . . ☐ 3
I hated going to school. . . . . ☐ 4

YE-11. During the past 12 months, how often did you feel that the school work you were assigned to do was meaningful and important?

I always felt this way . . . . ☐ 1
I sometimes felt this way. . . . . ☐ 2
I seldom felt this way. . . . . ☐ 3
I never felt this way. . . . . ☐ 4

YE-12. How important do you think the things you have learned in school during the past 12 months are going to be to you later in life?

Very important . . . . ☐ 1
Somewhat important . . . . ☐ 2
Somewhat unimportant . . . . ☐ 3
Very unimportant . . . . ☐ 4

YE-13. How interesting do you think most of your courses at school during the past 12 months have been?

Very interesting . . . . ☐ 1
Somewhat interesting . . . . ☐ 2
Somewhat boring . . . . ☐ 3
Very boring . . . . ☐ 4

(PLEASE TURN THE PAGE.)

YE-14. During the past 12 months, how often did your teachers at school let you know when you were doing a good job with your school work?

Always . . . . ☐ 1
Sometimes . . . . ☐ 2
Seldom . . . . ☐ 3
Never . . . . ☐ 4

YE-15. What were your grades for the last semester or grading period that you completed?

An "A+," "A" or "A-minus" average . . . . ☐ 1
A "B+," "B" or "B-minus" average . . . . ☐ 2
A "C+," "C" or "C-minus" average . . . . ☐ 3
A "D" or less than a "D" average . . . . ☐ 4
My school does not give these grades . . . . ☐ 5

YE-16. How many of the students in your grade at school would you say do each of the things listed below? *PLEASE MARK ONLY ONE BOX FOR EACH ITEM.*

	None of them	A few of them	Most of them	All of them
a. Smoke cigarettes.	☐ 1	☐ 2	☐ 3	☐ 4
b. Use marijuana or hashish.	☐ 1	☐ 2	☐ 3	☐ 4
c. Drink alcoholic beverages.	☐ 1	☐ 2	☐ 3	☐ 4
d. Get drunk at least once a week.	☐ 1	☐ 2	☐ 3	☐ 4

YE-17. How much trouble do you think a student in your grade would be in if he or she got caught at school doing the things listed below? *PLEASE MARK ONLY ONE BOX FOR EACH ITEM.*

	A lot of trouble	A little trouble	No trouble at all
a. Possessing a cigarette.	☐ 1	☐ 2	☐ 3
b. Smoking a cigarette.	☐ 1	☐ 2	☐ 3
c. Possessing an alcoholic beverage.	☐ 1	☐ 2	☐ 3
d. Drinking an alcoholic beverage.	☐ 1	☐ 2	☐ 3
e. Possessing an illegal drug.	☐ 1	☐ 2	☐ 3
f. Using an illegal drug.	☐ 1	☐ 2	☐ 3

(PLEASE GO TO THE NEXT PAGE.)

YE-18. During the past 12 months, how many times have you done each of the things listed below? *PLEASE MARK ONLY ONE BOX FOR EACH ITEM.*

	0 times	1 or 2 times	3 to 5 times	6 to 9 times	10 or more times
a. Argued or had a fight with at least one of your parents	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
b. Gotten into a serious fight at school or at work	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
c. Taken part in a fight where a group of your friends fought against another group	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
d. Carried a handgun	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
e. Sold illegal drugs	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
f. Stolen or tried to steal anything worth more than $50	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
g. Attacked someone with the intent to seriously hurt them	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

YE-19. How do you feel about someone your age doing each of the things listed below? *PLEASE MARK ONLY ONE BOX FOR EACH ITEM.*

	I neither approve nor disapprove	I somewhat disapprove	I strongly disapprove
a. Smoking one or more packs of cigarettes a day.	☐ 1	☐ 2	☐ 3
b. Trying marijuana or hashish once or twice.	☐ 1	☐ 2	☐ 3
c. Using marijuana or hashish once a month or more.	☐ 1	☐ 2	☐ 3
d. Having one or two drinks of an alcoholic beverage nearly every day.	☐ 1	☐ 2	☐ 3

YE-20. How do you think your close friends would feel about you doing each of the following things? *PLEASE MARK ONLY ONE BOX FOR EACH ITEM.*

	Neither Approve nor Disapprove	Somewhat Disapprove	Strongly Disapprove
a. Smoking one or more packs of cigarettes per day.	☐ 1	☐ 2	☐ 3
b. Trying marijuana or hashish once or twice.	☐ 1	☐ 2	☐ 3
c. Using marijuana or hashish once a month or more.	☐ 1	☐ 2	☐ 3
d. Having one or two drinks of an alcoholic beverage nearly every day.	☐ 1	☐ 2	☐ 3

YE-21. How many of your friends would you say do each of the things listed below? *PLEASE MARK ONLY ONE BOX FOR EACH ITEM.*

	None of them	A few of them	Most of them	All of them
a. Smoke cigarettes.	☐ 1	☐ 2	☐ 3	☐ 4
b. Use marijuana or hashish.	☐ 1	☐ 2	☐ 3	☐ 4
c. Drink alcoholic beverages.	☐ 1	☐ 2	☐ 3	☐ 4
d. Get drunk at least once a week.	☐ 1	☐ 2	☐ 3	☐ 4

(PLEASE TURN THE PAGE.)

YE-22. If you wanted to talk to someone about a serious problem, which of the following people would you turn to? *MARK ALL THAT APPLY.*

There is nobody that I can talk to about serious problems . . . ☐ 0
My mother . . . . ☐ 1
My father . . . . ☐ 2
My grandmother or grandfather . . . . ☐ 3
My boyfriend or girlfriend . . . . ☐ 4
My brother or sister . . . . ☐ 5
Some other relative . . . . ☐ 6
A friend . . . . ☐ 7
A neighbor . . . . ☐ 8
A teacher, principal, coach, or school counselor . . . . ☐ 9
A therapist, psychiatrist, or other private counselor . . . . ☐ 10
A pastor, clergy or church group . . . . ☐ 11
Some other person. *PLEASE SPECIFY:* . . . . ☐ 12

____

YE-23. Now think about the one person you are most likely to talk to about a serious problem. Who would that person be? *PLEASE MARK ONLY ONE BOX FOR THE BEST ANSWER.*

There is nobody that I can talk to about serious problems . . . ☐ 0
My mother . . . . ☐ 1
My father . . . . ☐ 2
My grandmother or grandfather . . . . ☐ 3
My boyfriend or girlfriend . . . . ☐ 4
My brother or sister . . . . ☐ 5
Some other relative . . . . ☐ 6
A friend . . . . ☐ 7
A neighbor . . . . ☐ 8
A teacher, principal, coach, or school counselor . . . . ☐ 9
A therapist, psychiatrist, or other private counselor . . . . ☐ 10
A pastor, clergy or church group . . . . ☐ 11
Some other person. *PLEASE SPECIFY:* . . . . ☐ 12

____

(PLEASE GO TO THE NEXT PAGE.)

YE-24. As you read each of the following activities, please mark one box beside each activity to indicate whether you have taken part in that activity during the past 12 months.

		Participated during the past 12 months?	
		YES	**NO**
a.	Big Brother/Big Sister/Big Buddy program or peer mentoring or tutoring program.	☐ 1	☐ 2
b.	Problem solving, communication skills or self-esteem group.	☐ 1	☐ 2
c.	Violence prevention program, where you learn ways to avoid fights and control anger.	☐ 1	☐ 2
d.	Youth center activities, at the YMCA, YWCA, or other similar community centers.	☐ 1	☐ 2
e.	Boy Scouts/Girl Scouts	☐ 1	☐ 2
f.	Private lessons (such as piano, dance, tennis, karate, horseback riding, etc.).	☐ 1	☐ 2
g.	Alcohol, tobacco or drug prevention program outside of school, where you learn about the dangers of using, and how to resist using, alcohol, tobacco or drugs.	☐ 1	☐ 2
h.	Team sports (such as football, basketball, swimming, gymnastics, etc.).	☐ 1	☐ 2
i.	4-H Club	☐ 1	☐ 2
j.	A program or meeting to help you deal with drug or alcohol use by you or another member of your family, such as AA, Alateen, or individual or group counseling.	☐ 1	☐ 2
k.	School band, orchestra, or choir	☐ 1	☐ 2
l.	School-related clubs	☐ 1	☐ 2
m.	Volunteer or community work, such as recycling or clean-up projects.	☐ 1	☐ 2
n.	Student government	☐ 1	☐ 2
o.	Pregnancy or sexually transmitted disease prevention programs.	☐ 1	☐ 2
p.	Job skills or job training.	☐ 1	☐ 2
q.	Church choir	☐ 1	☐ 2

(PLEASE TURN THE PAGE.)

YE-25. During the past 12 months, have you had any of the following alcohol or drug education classes or experiences in school? *PLEASE MARK ONLY ONE BOX FOR EACH ITEM.*

	Participated during the past 12 months?	
	YES	**NO**
a. A special class about drugs or alcohol	☐ 1	☐ 2
b. Films, lectures, discussions, or printed information about drugs or alcohol in one of your regular classes (health, physical education, etc.)	☐ 1	☐ 2
c. Films, lectures, discussions, or printed information about drugs or alcohol outside of one of your regular classes (e.g., special assemblies)	☐ 1	☐ 2

YE-26. During the past 12 months, have you seen or heard any alcohol or drug prevention messages from sources outside school (for example, posters, pamphlets, radio or TV ads)?

Yes ☐ 1
No ☐ 2

YE-27. How stressful have things been for you during the past 12 months?

Very stressful ☐ 1
Somewhat stressful ☐ 2
Not very stressful ☐ 3
Not at all stressful ☐ 4

YE-28. During the past 12 months, how stressful have things been for your immediate family?

Very stressful ☐ 1
Somewhat stressful ☐ 2
Not very stressful ☐ 3
Not at all stressful ☐ 4

YOU HAVE FINISHED THE YOUTH EXPERIENCES QUESTIONS.

THANK YOU FOR ANSWERING THESE QUESTIONS.

TELL THE INTERVIEWER THAT YOU ARE FINISHED
WITH THE YOUTH EXPERIENCES QUESTIONS.

SOCIAL ENVIRONMENT

Answer Sheet # 20

The first three questions are about the neighborhood where you currently live.

SE-1. How long have you lived in this neighborhood?

Less than one year . . . . ☐ 1
At least 1 year but less than 3 years . . . . ☐ 2
At least 3 years but less than 5 years . . . . ☐ 3
At least 5 years but less than 10 years . . . . ☐ 4
10 or more years . . . . ☐ 5

SE-2. How much do you agree or disagree with each of the following statements about your neighborhood? *PLEASE MARK ONLY ONE BOX FOR EACH ITEM.*

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
a. There is a lot of crime in my neighborhood	☐ 1	☐ 2	☐ 3	☐ 4
b. A lot of drug selling goes on in my neighborhood	☐ 1	☐ 2	☐ 3	☐ 4
c. People in my neighborhood share the same values	☐ 1	☐ 2	☐ 3	☐ 4
d. Family violence is a big problem in my neighborhood	☐ 1	☐ 2	☐ 3	☐ 4
e. Most people who live in my neighborhood are from the same racial or ethnic group	☐ 1	☐ 2	☐ 3	☐ 4
f. There is conflict or tension between people from different racial or ethnic groups in my neighborhood.	☐ 1	☐ 2	☐ 3	☐ 4
g. There are lots of street fights in my neighborhood.	☐ 1	☐ 2	☐ 3	☐ 4
h. There are many empty or abandoned buildings in my neighborhood.	☐ 1	☐ 2	☐ 3	☐ 4
i. People in my neighborhood often help each other out	☐ 1	☐ 2	☐ 3	☐ 4
j. There is a lot of graffiti in my neighborhood.	☐ 1	☐ 2	☐ 3	☐ 4
k. People in my neighborhood often visit in each other's homes.	☐ 1	☐ 2	☐ 3	☐ 4
l. My neighborhood is very safe.	☐ 1	☐ 2	☐ 3	☐ 4
m. People move in and out of my neighborhood often	☐ 1	☐ 2	☐ 3	☐ 4

SE-3. How do you think most people in your neighborhood would feel about adults doing each of the things listed below? *PLEASE MARK ONLY ONE BOX FOR EACH ITEM.*

	Neither Approve nor Disapprove	Somewhat Disapprove	Strongly Disapprove
a. Smoking one or more packs of cigarettes per day.	☐ 1	☐ 2	☐ 3
b. Trying marijuana or hashish once or twice.	☐ 1	☐ 2	☐ 3
c. Using marijuana or hashish once a month or more.	☐ 1	☐ 2	☐ 3
d. Having one or two drinks of an alcoholic beverage nearly every day.	☐ 1	☐ 2	☐ 3
e. Driving a car after having 1 or 2 drinks of an alcoholic beverage.	☐ 1	☐ 2	☐ 3

(PLEASE TURN THE PAGE.)

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SE-4. How many times have you moved in the past 5 years?

In the past 5 years, I have moved .... ☐ times

SE-5. Do one or more other people live here with you in this household?

YES, one or more other people live here with me .. ☐ 1 → **SE-6.** How much do you agree or disagree with each of the following statements about people in your household? *PLEASE MARK ONLY ONE BOX FOR EACH ITEM.*

People in my household...	**Strongly Agree**	**Somewhat Agree**	**Somewhat Disagree**	**Strongly Disagree**
a. ...often insult or yell at each other	☐ 1	☐ 2	☐ 3	☐ 4
b. ...have serious arguments	☐ 1	☐ 2	☐ 3	☐ 4
c. ...argue about the same things over and over	☐ 1	☐ 2	☐ 3	☐ 4

NO, no one else lives here ..... ☐ 2

GO TO QUESTION SE-11 AT THE TOP OF PAGE 4.

SE-7. Are you currently living with a spouse or partner?

YES, I am currently living with a spouse or partner ...... ☐ 1 → **CONTINUE WITH QUESTION SE-8 AT THE TOP OF PAGE 3.**

NO, I am not currently living with a spouse or partner ... ☐ 2 → **GO TO QUESTION SE-11 AT THE TOP OF PAGE 4.**

SE-8. Think about the past 12 months, from your 12-month reference date through today. Please mark how many times each of the following things happened during the past 12 months. *PLEASE MARK ONLY ONE BOX FOR EACH ITEM.*

	0 Times	**1 or 2 Times**	**A few Times**	**Many Times**
a. You and your spouse/partner spent an hour or more together doing an activity that you both enjoyed.	☐ 1	☐ 2	☐ 3	☐ 4
b. You and your spouse/partner were angry with each other.	☐ 1	☐ 2	☐ 3	☐ 4
c. Your spouse/partner hit or threatened to hit you.	☐ 1	☐ 2	☐ 3	☐ 4
d. You hit or threatened to hit your spouse/partner.	☐ 1	☐ 2	☐ 3	☐ 4

SE-9. How often is your spouse/partner critical of you?

Always . . . . . . ☐ 1
Sometimes . . . . . . ☐ 2
Seldom . . . . . . ☐ 3
Never . . . . . . ☐ 4

SE-10. How often does your spouse/partner show concern for your feelings and problems?

Always . . . . . . ☐ 1
Sometimes . . . . . . ☐ 2
Seldom . . . . . . ☐ 3
Never . . . . . . ☐ 4

(PLEASE TURN THE PAGE.)

SE-11. How stressful have things been for you during the past 12 months?

Very stressful ☐ 1
Somewhat stressful ☐ 2
Not very stressful ☐ 3
Not at all stressful ☐ 4

SE-12. During the past 12 months, how stressful have things been for your immediate family?

Very stressful ☐ 1
Somewhat stressful ☐ 2
Not very stressful ☐ 3
Not at all stressful ☐ 4

SE-13. Not including family members, how many friends do you have who:

	None	One	2 or 3	4 or 5	More than 5
a. you share personal issues and concerns with?	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
b. you spend time with on shared interests and activities?	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
c. really like and care about you?	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

SE-14. During the past 12 months, how many times have you done each of the things listed below? *PLEASE MARK ONLY ONE BOX FOR EACH ITEM.*

	0 Times	1 or 2 times	3 to 5 times	6 to 9 times	10 or more times
a. Carried a handgun	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
b. Sold illegal drugs	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
c. Stolen or tried to steal anything worth more than $50	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
d. Attacked someone with the intent to seriously hurt them	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

(PLEASE GO TO THE NEXT PAGE.)

SE-15. How do you feel about adults doing each of the things listed below? *PLEASE MARK ONLY ONE BOX FOR EACH ITEM.*

		I neither approve nor disapprove	I somewhat disapprove	I strongly disapprove
a.	Smoking one or more packs of cigarettes per day.	☐ 1	☐ 2	☐ 3
b.	Trying marijuana or hashish once or twice.	☐ 1	☐ 2	☐ 3
c.	Using marijuana or hashish once a month or more.	☐ 1	☐ 2	☐ 3
d.	Having one or two drinks of an alcoholic beverage nearly every day.	☐ 1	☐ 2	☐ 3
e.	Driving a car after having 1 or 2 drinks of an alcoholic beverage.	☐ 1	☐ 2	☐ 3

SE-16. How many of your friends would you say do each of the things listed below? *PLEASE MARK ONLY ONE BOX FOR EACH ITEM.*

		None of them	A few of them	Most of them	All of them
a	Smoke cigarettes.	☐ 1	☐ 2	☐ 3	☐ 4
b.	Use marijuana or hashish.	☐ 1	☐ 2	☐ 3	☐ 4
c.	Drink alcoholic beverages.	☐ 1	☐ 2	☐ 3	☐ 4
d.	Get drunk at least once a week.	☐ 1	☐ 2	☐ 3	☐ 4

YOU HAVE FINISHED THE SOCIAL ENVIRONMENT QUESTIONS.

THANK YOU FOR ANSWERING THESE QUESTIONS.

TELL THE INTERVIEWER THAT YOU ARE FINISHED
WITH THE SOCIAL ENVIRONMENT QUESTIONS.

PARENTING EXPERIENCES **Answer Sheet #21**

The questions on this answer sheet refer to your 12-17 year old child who was also selected to complete an interview. Please think about this child as you answer the questions on this answer sheet.

PE-1. What is the birthdate of your 12-17 year old child who also was selected to complete an interview?

MONTH .... ☐☐
DAY .... ☐☐
YEAR .... 19☐☐

PE-2. Think about the past 12 months, that is, from your 12- month reference date through today. Do you think your child has done any of the things listed below during the past 12 months, even once?

	YES	NO
a. Smoked one or more cigarettes	☐ 1	☐ 2
b. Used any chewing tobacco or snuff	☐ 1	☐ 2
c. Drank any type of alcoholic beverage	☐ 1	☐ 2
d. Used any marijuana or hashish	☐ 1	☐ 2
e. Used any form of cocaine (such as powder, "crack," free base or coca paste)	☐ 1	☐ 2
f. Used any inhalant (such as nitrous oxide, glue, paint thinner, or certain aerosol sprays)	☐ 1	☐ 2

PE-3. During the past 12 months, how many times have you talked with your child about the dangers or problems associated with the use of tobacco, alcohol, or other drugs?

0 times .... ☐ 1 → **SKIP TO QUESTION PE-5 AT TOP OF PAGE 2.**
1 or 2 times .... ☐ 2
A few times .... ☐ 3
Many times .... ☐ 4
→ (2–4) **PE-4.** Think about the most serious and thorough discussion about drugs you had with your child during the past 12 months. About how long did this discussion last?

Less than 10 minutes .... ☐ 1
10 to 30 minutes ...... ☐ 2
31 to 60 minutes ...... ☐ 3
More than 60 minutes ... ☐ 4

(PLEASE TURN THE ANSWER SHEET OVER)

PE-5. How much do you agree or disagree with each of the statements listed below? *PLEASE MARK ONLY ONE BOX FOR EACH ITEM.*

	Strongly Agree	Agree	Disagree	Strongly Disagree
a. I wish I knew better what to say to my child about drugs.	☐ 1	☐ 2	☐ 3	☐ 4
b. What I say will have little influence on whether my child uses drugs.	☐ 1	☐ 2	☐ 3	☐ 4
c. Drug education is best handled by the schools, not by parents.	☐ 1	☐ 2	☐ 3	☐ 4
d. There are places in my community where I can learn more about how to help prevent my child from using drugs.	☐ 1	☐ 2	☐ 3	☐ 4

YOU HAVE FINISHED THE QUESTIONS ABOUT PARENTING EXPERIENCES.

THANK YOU FOR ANSWERING THESE QUESTIONS.

TELL THE INTERVIEWER THAT YOU ARE FINISHED WITH THE PARENTING EXPERIENCES QUESTIONS.

APPENDIX G

SELECTED QUESTIONNAIRE PAGES

The first few questions are for statistical purposes only, to help us analyze the results of the study.

D-1. (RECORD ®'S SEX):

MALE ☐ 1
FEMALE ☐ 2

D-2. **What is your date of birth?**

MONTH ____
DAY ____
YEAR ____ → (VERBALLY VERIFY WITH ® THAT AGE FROM FRONT COVER IS CONSISTENT WITH BIRTHDATE)

D-3. **Are you of Hispanic or Spanish origin or descent?**

YES ☐ 1
NO ☐ 2 → (SKIP TO Q.D-5)

D-4. **Which of these Hispanic-origin groups best describes you? Are you...**

Puerto Rican, ☐ 1
Mexican, ☐ 2
Cuban, or ☐ 3
Some other group? (SPECIFY):
____________________ ☐ 4

D-5. (HAND ® SHOWCARD 1.) **Which of the groups on this card best describes you? Just give me the number.**

WHITE ☐ 1
BLACK ☐ 2
AMERICAN INDIAN OR ALASKAN NATIVE ☐ 3
ASIAN OR PACIFIC ISLANDER (INCLUDING ASIAN INDIAN) ☐ 4
OTHER (SPECIFY):
____________________ ☐ 5

(TAKE BACK SHOWCARD 1.)

FI CHECKPOINT A	MARK ONE BOX:	® IS 12-14 YEARS OLD	☐ 1	→ (SKIP TO FI CHECKPOINT B)
		® IS 15 YEARS OLD OR OLDER	☐ 2	→ (CONTINUE WITH Q.D-6)

D-6. **Which of the following best describes your current marital status. Are you ...**

Married, ... ☐ 1
Widowed, ... ☐ 2
Divorced or separated, or . . . . ☐ 3
Have you never married? . . . . ☐ 4 → (SKIP TO FI CHECKPOINT B)

D-7. **How many times have you been married?**

NUMBER OF TIMES MARRIED . |_____|

FI CHECKPOINT B	MARK ONE BOX:	® IS 12-16 YEARS OLD	☐ 1	→ (SKIP TO Q.D-10)
		® IS 17 YEARS OLD OR OLDER	☐ 2	→ (CONTINUE WITH Q.D-8)

D-8. **Have you ever been in the United States' armed forces?**

YES . . . . ☐ 1
NO . . . . ☐ 2 → (SKIP TO Q.D-10)

D-9. **Are you currently ...**

On active duty in the armed forces, ... ☐ 1 → (PROBE: IF CONFIRMED, TERMINATE INTERVIEW)
In a reserves component, or . . . . ☐ 2
Now separated or retired from either reserves or active duty? . . . . ☐ 3

D-10. The next questions are about your schooling. What is the last grade or year that you completed in school?

® HAS NO SCHOOLING .... ☐ 0
ELEMENTARY SCHOOL GRADES:
  FIRST GRADE .... ☐ 1
  SECOND GRADE .... ☐ 2
  THIRD GRADE .... ☐ 3
  FOURTH GRADE .... ☐ 4
  FIFTH GRADE .... ☐ 5
  SIXTH GRADE .... ☐ 6
  SEVENTH GRADE .... ☐ 7
  EIGHTH GRADE .... ☐ 8
HIGH SCHOOL GRADES:
  NINTH GRADE .... ☐ 9
  TENTH GRADE .... ☐ 10
  ELEVENTH GRADE .... ☐ 11
  TWELFTH GRADE .... ☐ 12
COLLEGE/TECHNICAL SCHOOL YEARS:
  FRESHMAN/13th YEAR .... ☐ 13
  SOPHOMORE/14th YEAR .... ☐ 14
  JUNIOR/15th YEAR .... ☐ 15
  SENIOR/16th YEAR .... ☐ 16
GRADUATE/PROFESSIONAL SCHOOL
  (OR HIGHER) .... ☐ 17

→ (SKIP TO Q.D-12)

D-11. Have you received a high school diploma (PAUSE), **or a GED certificate of high school completion?** Which have you received? (MARK ONLY ONE ANSWER.)

HIGH SCHOOL DIPLOMA .... ☐ 1
GED CERTIFICATE .... ☐ 2
NEITHER OF THE ABOVE .... ☐ 3

D-12. Are you now enrolled in any kind of school?

YES .... ☐ 1
NO .... ☐ 2

D-13. (HAND ® SHOWCARD 2.) **Please look at this card and tell me which of the statements describes your present work situation.** (MARK THE FIRST ANSWER THAT APPLIES.)

WORKING FULL-TIME, 35 HOURS OR MORE A WEEK . . . . ☐ 1

WORKING PART-TIME, LESS THAN 35 HOURS A WEEK . . . . ☐ 2

HAVE A JOB, BUT NOT AT WORK BECAUSE OF EXTENDED ILLNESS, MATERNITY LEAVE, FURLOUGH, OR STRIKE . . . . ☐ 3

HAVE A JOB BUT NOT AT WORK BECAUSE IT IS SEASONAL WORK . . . . ☐ 4

UNEMPLOYED OR LAID OFF AND LOOKING FOR WORK . . . . ☐ 5

UNEMPLOYED OR LAID OFF AND NOT LOOKING FOR WORK . . . . ☐ 6

FULL-TIME HOMEMAKER . . . . ☐ 7

IN SCHOOL ONLY . . . . ☐ 8

RETIRED . . . . ☐ 9

DISABLED FOR WORK . . . . ☐ 10

OTHER (SPECIFY):

________________________________ ☐ 11

(TAKE BACK SHOWCARD 2.)

HEALTH

Now we have some questions concerning your health.

HE-1. **About how tall are you, without shoes?**

FEET . . . . ⌊__⌋
INCHES . . . . ⌊____⌋

HE-2. **About how much do you weigh, without shoes?**

POUNDS . . . . ⌊______⌋

HE-3. **Would you say your health in general is ...**

Excellent, ...	☐ 1
Very good, ...	☐ 2
Good, ...	☐ 3
Fair, or	☐ 4
Poor?	☐ 5

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CALENDAR

Throughout the rest of this questionnaire, I will be asking you to answer a number of questions about three specific time periods, namely the past 30 days, the past 12 months and your lifetime. To help you remember the first two time periods, let's mark this calendar with the beginning dates for each one of them.

(SHOW CALENDAR TO RESPONDENT.)

Now, let's think about the past 30 days. According to the calendar, (MONTH AND DATE) was 30 days ago, so I will write (MONTH AND DATE) here on the calendar. I'll call that your 30-day reference date.

(WRITE 30-DAY REFERENCE DATE ON CALENDAR AND CIRCLE DAY; UNDERLINE ENTIRE 30-DAY PERIOD.)

A number of questions will ask about the past 12 months, that is since this date last year. Let's look at the calendar and find that date. I'll call that your 12-month reference date.

(WRITE 12-MONTH REFERENCE DATE ON CALENDAR, AND CIRCLE DAY ON CALENDAR.)

Please use this calendar as we go through the interview to help you remember when different things happened. I will remind you to think about your 30-day reference date and your 12-month reference date when I ask you questions.

DEMOGRAPHICS

That was the last of the answer sheets. For the remaining questions, I will read the question out loud, you can tell me your answer, and I will record it in the questionnaire booklet.

D-14. **How many times in the past 12 months have you moved?**

NUMBER OF TIMES ® HAS MOVED IN THE PAST 12 MONTHS	____

D-15. **Now I have some questions about your schooling. I need to confirm what you told me earlier about your school experience. Is it correct that the last grade or year you completed in school was:** (READ SCHOOL STATUS CATEGORY MARKED IN Q.D-10 ON PAGE 3. MARK CORRECT CATEGORY BELOW.)

® HAS NO SCHOOLING	☐ 0
ELEMENTARY SCHOOL GRADES:	
FIRST GRADE	☐ 1
SECOND GRADE	☐ 2
THIRD GRADE	☐ 3
FOURTH GRADE	☐ 4
FIFTH GRADE	☐ 5
SIXTH GRADE	☐ 6
SEVENTH GRADE	☐ 7
EIGHTH GRADE	☐ 8
HIGH SCHOOL GRADES:	
NINTH GRADE	☐ 9
TENTH GRADE	☐ 10
ELEVENTH GRADE	☐ 11
TWELFTH GRADE	☐ 12
COLLEGE/TECHNICAL SCHOOL YEARS:	
FRESHMAN/13th YEAR	☐ 13
SOPHOMORE/14th YEAR	☐ 14
JUNIOR/15th YEAR	☐ 15
SENIOR/16th YEAR	☐ 16
GRADUATE/PROFESSIONAL SCHOOL (OR HIGHER)	☐ 17

D-16 **Are you now ...** (READ ANSWER CHOICES)

A full-time student,	☐ 1	→ [SKIP TO Q.D-19]
A part-time student, or are you	☐ 2	→ [SKIP TO FI CHECKPOINT AA]
Not enrolled in any school?	☐ 3	

FI CHECKPOINT Y	MARK ONE BOX: Q.D-15 = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, or 11 AND Q.D-16 = 3	☐ 1	→ (CONTINUE WITH CHECKPOINT Z)
	Q.D-15 = 12, 13, 14, 15, 16, or 17 AND Q.D-16 = 3	☐ 2	→ (SKIP TO FI CHECKPOINT AA)

FI CHECKPOINT Z	IS ® 50 YEARS OLD OR OLDER?		
	YES	☐ 1	→ (SKIP TO Q.D-21)
	NO	☐ 2	→ (CONTINUE WITH Q.D-17)

D-17. **Please look at this card and tell me which one of these reasons best describes why you left school.** (HAND ® SHOWCARD 6.) **Just give me the number.**

I WAS GETTING BAD GRADES .... ☐ 1
SCHOOL WAS BORING .... ☐ 2
I GOT EXPELLED FOR SELLING DRUGS .... ☐ 3
I GOT EXPELLED FOR USING DRUGS ...... ☐ 4
I GOT EXPELLED FOR SOME OTHER REASON .... ☐ 5
I GOT PREGNANT .... ☐ 6
I HAD TO GET A JOB BECAUSE I NEEDED THE MONEY .... ☐ 7
I WASN'T LEARNING ANYTHING .... ☐ 8
I WENT TO JAIL/PRISON .... ☐ 9
OTHER (SPECIFY):______________________ ☐ 10

(TAKE BACK SHOWCARD 6.)

D-18. **How old were you when you left or stopped attending school?**

AGE ® LEFT/STOPPED ATTENDING SCHOOL .... |______| → [SKIP TO FI CHECKPOINT AA)

D-19. **From your 30-day reference date up to and including today, how many whole days of school did you miss because you were sick or injured?**

NUMBER OF DAYS MISSED SCHOOL FOR ILLNESS OR INJURY .... |______|

SCHOOL NOT IN SESSION .... ☐ 90

D-20. **From your 30-day reference date up to and including today, how many whole days did you miss because you skipped or "cut" or just didn't want to be there?**

NUMBER OF DAYS SKIPPED SCHOOL ..... |____|

SCHOOL NOT IN SESSION .... ☐ 90

FI	IS ® 18 YEARS OLD OR OLDER?		
CHECKPOINT	YES	☐ 1	→ (CONTINUE WITH Q.D-21)
AA	NO	☐ 2	→ (SKIP TO Q.D-46)

D-21. **Now I have some questions about your work status. How many different employers have you had in the past 12 months?**

NUMBER OF EMPLOYERS .... |____|

D-22. **I need to confirm what you told me earlier about your present work situation. Is it correct that you are:** (READ WORK STATUS CATEGORY MARKED IN Q.D-13 ON PAGE 4. MARK CORRECT CATEGORY BELOW.)

WORKING FULL-TIME, 35 HOURS OR MORE A WEEK .... ☐ 1
WORKING PART-TIME, LESS THAN 35 HOURS A WEEK .... ☐ 2
HAVE A JOB, BUT NOT AT WORK BECAUSE OF EXTENDED ILLNESS, MATERNITY LEAVE, FURLOUGH, OR STRIKE .... ☐ 3
HAVE A JOB, BUT NOT AT WORK BECAUSE IT IS SEASONAL WORK ..... ☐ 4
UNEMPLOYED OR LAID OFF AND LOOKING FOR WORK .... ☐ 5
UNEMPLOYED OR LAID OFF AND NOT LOOKING FOR WORK .... ☐ 6
FULL-TIME HOMEMAKER .... ☐ 7
IN SCHOOL ONLY .... ☐ 8
RETIRED .... ☐ 9
DISABLED FOR WORK .... ☐ 10
OTHER (SPECIFY) .... ☐ 11

____

D-23. **During the past 12 months -- that is, from your 12-month reference date through today -- for how many weeks have you been (READ WORK STATUS FROM Q.D-22)? There are 52 weeks in 12 months.**

NUMBER OF WEEKS .... |____|

FI	MARK ONE BOX: Q.D-22 (WORK STATUS) = 1, 2, 3, or 4	☐ 1	→ (CONTINUE WITH Q.D-24)
CHECKPOINT			
BB	Q.D-22 (WORK STATUS) = 5, 6, 7, 8, 9, 10 or 11	☐ 2	→ (SKIP TO Q.D-36)

D-24. **The next questions seek to identify whether you work for a large or small business. About how many people work for your employer at all locations? By location, we mean all the offices, stores, etc., regardless of their geographic location, of a certain company.** (HAND ® SHOWCARD 7.)

LESS THAN 10 PEOPLE .... ☐ 1
10-24 PEOPLE .... ☐ 2
25-99 PEOPLE .... ☐ 3
100-499 PEOPLE .... ☐ 4
500 PEOPLE OR MORE .... ☐ 5

D-25. **Thinking about the location where you work, how many people work for your employer out of this office, store, etc.?** (HAND ® SHOWCARD 7.)

LESS THAN 10 PEOPLE .... ☐ 1
10-24 PEOPLE .... ☐ 2
25-99 PEOPLE .... ☐ 3
100-499 PEOPLE .... ☐ 4
500 PEOPLE OR MORE .... ☐ 5

(TAKE BACK SHOWCARD 7.)

D-26. **At your workplace, have you ever been provided with any information regarding the use of alcohol or drugs?**

YES .... ☐ 1
NO .... ☐ 2
DON'T REMEMBER .... ☐ 94

D-27. **At your workplace, is there a written policy regarding employee use of alcohol or drugs?**

YES .... ☐ 1
NO .... ☐ 2 ⎤
DON'T KNOW .... ☐ 94 ⎦ → (SKIP TO Q.D-29)

D-28. **Does this policy cover only alcohol, only drugs, or both alcohol and drugs?**

ONLY ALCOHOL .... ☐ 1
ONLY DRUGS .... ☐ 2
BOTH ALCOHOL AND DRUGS .... ☐ 3
DON'T KNOW .... ☐ 94

D-29. **Through your workplace, is there access to any type of employee assistance program or other type of counseling program for employees who have alcohol or drug-related problems?**

YES .... ☐ 1
NO .... ☐ 2
DON'T KNOW .... ☐ 94

D-30. **Are there any circumstances under which your workplace tests its employees for...**

	YES	NO	DON'T KNOW
a. **Alcohol usage?**	☐1	☐2	☐94
b. **Drug usage?**	☐1	☐2	☐94

FI CHECKPOINT CC	MARK ONE BOX:	Q.D-30a = NO or DK AND Q.D-30b = NO or DK	☐1	➔ (SKIP TO Q.D-32)
		Q.D-30a or Q.D-30b = YES	☐2	➔ (CONTINUE WITH Q.D-31)

D-31. **Under what circumstances does your workplace or business test its employees for drug or alcohol usage? Is it conducted ...** (READ ALL CATEGORIES)

	YES	NO	DON'T KNOW
a. **As part of the hiring process?**	☐1	☐2	☐94
b. **On a random basis?**	☐1	☐2	☐94
c. **Based on the reasonable suspicion of a supervisor?**	☐1	☐2	☐94
d. **Following a work-related accident?**	☐1	☐2	☐94
e. **For some other reason, such as testing subsequent to treatment?**	☐1	☐2	☐94

D-32. **Would you be more or less likely to want to work for an employer that tests its employees for drug usage as part of the hiring process? Would you say ...**

More likely, ☐1
Less likely, or ☐2
Would it make no difference to you? ☐3

D-33. **Would you be more or less likely to want to work for an employer that tests its employees for drug or alcohol usage on a random basis? Would you say ...**

More likely, ☐1
Less likely, or ☐2
Would it make no difference to you? ☐3

D-34. **Would you be more or less likely to want to work for an employer that tests its employees for drug or alcohol usage based on the reasonable suspicion of a supervisor? Would you say ...**

More likely, ☐1
Less likely, or ☐2
Would it make no difference to you? ☐3

D-35. **Would you be more or less likely to want to work for an employer that tests its employees for drug or alcohol usage following a work-related accident? Would you say ...**

More likely, ☐ 1
Less likely, or ☐ 2
Would it make no difference to you? ☐ 3
→ (SKIP TO Q. D-37)

D-36. **In what month and year did you last work for pay?**

MONTH ____
YEAR 19____
NEVER WORKED FOR PAY ☐ 9991 → (SKIP TO FI CHECKPOINT DD)

D-37. **What kind of work (are/were) you doing at your primary job? By primary job we mean the job at which you (work/worked) the most hours.** (PROBE: What is/was your job title?)

KIND OF WORK: ________________________
(JOB TITLE)

D-38. **What (are/were) your most important activities or duties in that job?** (PROBE FOR DETAIL.)

DUTIES: ________________________

D-39. **In what type of business or industry (is/was) this; that is, what product (is/was) made or what service (is/was) offered?** (PROBE FOR DETAIL.)

BUSINESS
OR INDUSTRY: ________________________

D-40. **(Is/was) this mainly ...** (READ ANSWER CHOICES)

Manufacturing, ☐ 1
Wholesale trade, ☐ 2
Retail trade, or ☐ 3
Something else? (SPECIFY):
________________________ ☐ 4

FI CHECKPOINT DD	MARK ONE BOX:		
	Q.D-22 ON PAGE 99 (WORK STATUS) = 1, 2, 3, or 4	☐ 1	→ (CONTINUE WITH Q.D-41)
	Q.D-22 ON PAGE 99 (WORK STATUS) = 5, 6, 7, 8, 9, 10 or 11	☐ 2	→ (SKIP TO Q.D-46)

D-41. **During the past 30 days -- that is from your 30-day reference date up to and including today -- how many whole days of work did you miss because you were sick or injured?**

NUMBER OF DAYS MISSED WORK FOR
ILLNESS OR INJURY . . . . |___|

D-42. **During the past 30 days, how many whole days of work did you miss because you just didn't want to be there?**

NUMBER OF DAYS SKIPPED WORK . . . . |___|

D-43. **Now, think about the next 12 months. How likely do you think it is that you will lose your job or be laid off sometime in the next 12 months? Would you say ...**

Very likely, ... ☐1
Somewhat likely, ... ☐2
Somewhat unlikely, or . . . . ☐3
Very unlikely? . . . . ☐4

D-44. **How easy do you think it would be for you to find a job with a different employer with approximately the same income and benefits you now receive? Would you say ...**

Very easy, ... ☐1
Somewhat easy, ... ☐2
Somewhat difficult, or . . . . ☐3
Very difficult? . . . . ☐4

D-45. **Overall, how satisfied are you with your current job? Would you say you are ...**

Very satisfied, ... ☐1
Somewhat satisfied, ... ☐2
Somewhat dissatisfied, or . . . . ☐3
Very dissatisfied? . . . . ☐4

D-46. **Altogether, how many people live here now, including yourself?**

NUMBER OF RESIDENTS IN HOUSEHOLD ..... |______| → (IF "1," SKIP TO FI CHECKPOINT FF)

D-47. **Now I need some additional information about each person who lives here. Starting with the oldest person, please tell me how old each person was on his or her last birthday.**

(RECORD AGE IN WHOLE YEARS FOR EVERYONE AGE 2 OR OLDER IN COLUMN B OF TABLE. FOR CHILDREN YOUNGER THAN 2 YEARS, PROBE FOR AND RECORD AGE IN WHOLE MONTHS IN COLUMN C.)

(AFTER ALL PERSONS ARE LISTED, ASK Q.D-47a AND Q.D-47b FOR EACH PERSON.)

D-47a. **Is the (AGE) person a male or a female?** (CIRCLE CORRECT SEX IN COLUMN D.)

D-47b. (HAND SHOWCARD 8.) **Please look at this card and tell me which category best describes (his/her) relationship to you.** (USE LISTING ON NEXT PAGE TO ASSIGN THE APPROPRIATE CODE. RECORD CODE IN COLUMN E. ASK FOLLOWUP QUESTIONS AS NECESSARY.)

(TAKE BACK SHOWCHARD 8.)

TABLE OF HOUSEHOLD MEMBERS

Col. A	**Col. B**	**Col. C**	**Col. D**	**Col. E**
Person Number	Age in Years (for persons 2 years or older)	Age in Months (for children younger than 2)	Sex	Relationship Code
01			M F	
02			M F	
03			M F	
04			M F	
05			M F	
06			M F	
07			M F	
08			M F	
09			M F	
10			M F	
11			M F	
12			M F	
13			M F	
14			M F	

(CONTINUE ON NEXT PAGE IF NEEDED)

FI	WERE TWO PEOPLE SELECTED FOR INTERVIEW IN THIS HOUSEHOLD?		
CHECKPOINT	YES	☐1 →	(CIRCLE PERSON NUMBER OF OTHER SAMPLE PERSON IN COLUMN A, THEN GO TO FI CHECKPOINT FF.)
EE	NO	☐2 →	(SKIP TO FI CHECKPOINT FF.)

RELATIONSHIP CODES FROM SHOWCARD 8

01 SELF

02 MOTHER OR FATHER → **Is this your biological, step-, adoptive, or foster (mother/father)?** RECORD APPROPRIATE CODE IN HOUSEHOLD ROSTER. IF ® IS UNSURE, RECORD CODE "02":

- 21 BIOLOGICAL MOTHER OR FATHER
- 22 STEP-MOTHER OR FATHER
- 23 ADOPTIVE MOTHER OR FATHER
- 24 FOSTER MOTHER OR FATHER

03 SON OR DAUGHTER → **Is this your biological, step-, adoptive, or foster (son/daughter)?** RECORD APPROPRIATE CODE IN HOUSEHOLD ROSTER. IF ® IS UNSURE, RECORD CODE "03":

- 31 BIOLOGICAL SON OR DAUGHTER
- 32 STEP-SON OR DAUGHTER
- 33 ADOPTIVE SON OR DAUGHTER
- 34 FOSTER SON OR DAUGHTER

04 BROTHER OR SISTER → **Is this your full, half, step-, adoptive, or foster (brother/sister)?** RECORD APPROPRIATE CODE IN HOUSEHOLD ROSTER. IF ® IS UNSURE, RECORD CODE "04":

- 41 FULL BROTHER OR SISTER → IF SAME AGE AS ®:
    - IF IDENTICAL, CODE 46
    - IF FRATERNAL, CODE 47
    - IF ® IS UNSURE, CODE 41
- 42 HALF BROTHER OR SISTER
- 43 STEP-BROTHER OR SISTER
- 44 ADOPTIVE BROTHER OR SISTER
- 45 FOSTER BROTHER OR SISTER

05 HUSBAND OR WIFE
06 UNMARRIED PARTNER
07 HOUSEMATE/ROOMMATE
08 SON-IN-LAW OR DAUGHTER-IN-LAW
09 GRANDDAUGHTER OR GRANDSON
10 MOTHER-IN-LAW OR FATHER-IN-LAW
11 GRANDMOTHER OR GRANDFATHER
12 BOARDER/ROOMER/EXCHANGE STUDENT/ETC.
13 OTHER RELATIVE
14 OTHER NON-RELATIVE

TABLE OF HOUSEHOLD MEMBERS, CONTINUED

Col. A	**Col. B**	**Col. C**	**Col. D**	**Col. E**
Person Number	Age in Years (for persons 2 years or older)	Age in Months (for children younger than 2)	Sex	Relationship Code
15			M F	
16			M F	
17			M F	
18			M F	
19			M F	
20			M F	

(REMEMBER TO COMPLETE FI CHECKPOINT EE ON PAGE 104)

FI CHECKPOINT FF	MARK ONE BOX:		
	® IS FEMALE LESS THAN 45 YEARS OLD	☐ 1	→ (CONTINUE WITH Q.D-48)
	® IS FEMALE 45 YEARS OR OLDER	☐ 2	→ (SKIP TO FI CHECKPOINT GG)
	® IS MALE	☐ 3	

D-48. **Are you currently pregnant?**

YES . . . . ☐ 1
NO . . . . ☐ 2 → (SKIP TO FI CHECKPOINT GG)

D-49. **How many months pregnant are you?**

NUMBER OF MONTHS PREGNANT . . . . |___|

FI CHECKPOINT GG	IS ® THE ONLY ADULT 18 OR OLDER LIVING IN THIS HOUSEHOLD?		
	YES	☐ 1	→ (SKIP TO Q.D-52)
	NO	☐ 2	→ (CONTINUE WITH Q.D-50)

D-50. **Who is considered to be the chief wage earner or source of income in this household?**

RESPONDENT . . . . ☐ 1 → (SKIP TO Q.D-52)
SOMEONE ELSE (SPECIFY RELATIONSHIP TO ®) . . . . ☐ 2
____
INCOME CONTRIBUTED EQUALLY BY ® AND SOMEONE ELSE (SPECIFY RELATIONSHIP TO ®) . . ☐ 3
____
NO ONE . . . . ☐ 4 → (SKIP TO Q.D-52)

D-51. **Does (he/she) work ...** (READ ANSWER CHOICES)

Full-time, or . . . . ☐ 1
Part-time? . . . . ☐ 2
CHIEF SOURCE OF INCOME DOES NOT WORK . . . . ☐ 3

D-52. During the past 12 months, how many times did you attend religious services? Please do not include special occasions such as weddings, christenings, funerals, or other special events in your answer. Would you say...

0 times,	☐ 1
1 to 2 times,	☐ 2
3 to 5 times,	☐ 3
6 to 24 times,	☐ 4
25 to 52 times, or	☐ 5
More than 52 times?	☐ 6

D-53. I am going to read some statements about the role that religious beliefs may play in your life. Please tell me if you strongly disagree, disagree, agree, or strongly agree with each statement. (READ ALL STATEMENTS.)

	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE
a. My religious beliefs are a very important part of my life	☐ 1	☐ 2	☐ 3	☐ 4
b. My religious beliefs influence how I make decisions in my life	☐ 1	☐ 2	☐ 3	☐ 4
c. It is important that my friends share my religious beliefs	☐ 1	☐ 2	☐ 3	☐ 4

HEALTH CARE

Now we have some questions about any medical treatment you may have had in a hospital or emergency room. For these four questions, think about the past 12 months -- that is, from your 12-month reference date up to and including today.

HC-1. **During the past 12 months, how many different times have you been treated in an emergency room because of injury or illness?**

NONE .... ☐ 0
NUMBER OF TIMES IN EMERGENCY ROOM .... |____|

HC-2. **During the past 12 months, how many different times have you stayed overnight or longer in a hospital?**

NONE .... ☐ 0 → (SKIP TO Q HC-4)
NUMBER OF OVERNIGHT STAYS IN HOSPITAL .... |____|

HC-3. **During the past 12 months, how many different times have you stayed overnight or longer in a hospital to receive treatment for psychological or emotional difficulties?**

NONE .... ☐ 0
NUMBER OF OVERNIGHT PSYCHIATRIC STAYS .... |____|

HC-4. **Have you received treatment for psychological problems or emotional difficulties at a mental health clinic or by a mental health professional on an outpatient basis in the past 12 months?**

YES .... ☐ 1
NO .... ☐ 2

PROXY INFORMATION

The next questions are about your health care, health insurance coverage, and the kinds and amounts of income that you receive. The answers to these questions will add greatly to our knowledge about the health problems of the American people, the types of health care they receive, and whether they can afford the care that they need. This information will help in planning health care services and finding ways to lower costs of care.

(IF ® HAS NO FAMILY MEMBERS LIVING IN THIS RESIDENCE, SKIP TO ACCESS TO CARE SECTION ON PAGE 110.)

P-1. **Is there some other family member who lives here that you think would be better able to give me the correct information about your health care, health insurance coverage, and the kinds of income you receive?**

YES . . . . ☐ 1
NO . . . . ☐ 2 → (SKIP TO ACCESS TO CARE SECTION ON PAGE 110)

P-2. **Who is the person you think can help us get the correct information for these questions?**

®'s SPOUSE/LIVE-IN PARTNER . . . . . ☐ 1
®'s FATHER . . . . ☐ 2
®'s MOTHER . . . . ☐ 3
®'s BROTHER . . . . ☐ 4
®'s SISTER . . . . ☐ 5
OTHER FAMILY MEMBER (SPECIFY RELATIONSHIP TO ®): ________________________ ☐ 6

P-3. **Is your (RELATIVE FROM Q.P-2) here at home now?**

YES . . . . ☐ 1
NO . . . . ☐ 2 → (SKIP TO ACCESS TO CARE SECTION ON PAGE 110)

P-4. **Would you ask your (RELATIVE FROM Q.P-2) to join us to help with these last questions about health care, health insurance, and income?**

YES . . . . ☐ 1
NO . . . . ☐ 2 → (SKIP TO ACCESS TO CARE SECTION ON PAGE 110)

FI CHECKPOINT HH	**(READ ALOUD ONLY IF PROXY JOINS ®): The next questions are about (SAMPLE MEMBER's) health care, health insurance coverage, and the kinds and amounts of income that (SAMPLE MEMBER) and other people in your family receive.** The answers to these questions will add greatly to our knowledge about the health problems of the American people, the types of health care they receive, and whether they can afford the care that they need. This information will help in planning health care services and finding ways to lower costs of care.

ACCESS TO CARE

These questions are about medical care.

AC-1. **Is there one particular person or place that (you usually go/SAMPLE MEMBER usually goes) to when (you are/SAMPLE MEMBER is) sick or need(s) advice about (your/his/her) health?**

YES .... ☐ 1 → (SKIP TO Q. AC-8)
NO .... ☐ 2
DON'T KNOW .... ☐ 3 → (SKIP TO Q. AC-4)
CODE ONLY IF ® VOLUNTEERED:
THERE IS MORE THAN ONE PLACE .... ☐ 4 → (SKIP TO Q. AC-3)

AC-2. **Which of these is the main reason (you do/SAMPLE MEMBER does) not have a usual source of medical care?** (HAND ® SHOWCARD 9.)

TWO OR MORE USUAL DOCTORS/PLACES .... ☐ 1
DON'T NEED A DOCTOR .... ☐ 2
DON'T LIKE/TRUST/BELIEVE IN DOCTORS .... ☐ 3
DON'T KNOW WHERE TO GO .... ☐ 4
PREVIOUS DOCTOR IS NOT AVAILABLE/MOVED .... ☐ 5
NO INSURANCE/CAN'T AFFORD IT .... ☐ 6
SPEAK A DIFFERENT LANGUAGE .... ☐ 7
NO CARE AVAILABLE/CARE TOO FAR AWAY OR NOT CONVENIENT .... ☐ 8
OTHER (SPECIFY):
______________________________ .. ☐ 9
DON'T KNOW .... ☐ 94

(2–94) → (SKIP TO Q.AC-4)

(TAKE BACK SHOWCARD 9.)

AC-3. **Is there one of these places that (you go/SAMPLE MEMBER goes) to most often when (you are/SAMPLE MEMBER is) sick or need(s) advice about (your/his/her) health?**

YES .... ☐ 1 → (SKIP TO Q. AC-8)
NO .... ☐ 2
DON'T KNOW .... ☐ 94

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AC-4. **At any time in the past 12 months, did (you/SAMPLE MEMBER) have a place that (you/he/she) usually went to for medical care?**

YES .... ☐ 1
NO .... ☐ 2 → (SKIP TO HEALTH INSURANCE SECTION ON PAGE 113.)
DON'T KNOW .... ☐ 94

AC-5. **What kind of place was it -- a clinic, a health center, a hospital, a doctor's office, or some other place?**

DOCTOR'S OFFICE OR PRIVATE CLINIC .... ☐ 1
COMPANY OR SCHOOL HEALTH CLINIC/CENTER .... ☐ 2
COMMUNITY/MIGRANT/RURAL CLINIC OR CENTER .... ☐ 3
COUNTY/CITY/PUBLIC HOSPITAL OUTPATIENT CLINIC .... ☐ 4
PRIVATE/OTHER HOSPITAL OUTPATIENT CLINIC .... ☐ 5
HOSPITAL EMERGENCY ROOM ... ☐ 6
HMO (HEALTH MAINTENANCE ORGANIZATION/PRE-PAID GROUP) .... ☐ 7
PSYCHIATRIC HOSPITAL OR CLINIC .... ☐ 8
VA HOSPITAL OR CLINIC .... ☐ 9
MILITARY HEALTH CARE FACILITY .... ☐ 10
SOME OTHER PLACE (SPECIFY):

____

________________________________ ☐ 11

AC-6. **If (you/SAMPLE MEMBER) needed medical care now, would (you/he/she) go to that (FILL PLACE FROM Q. AC-5)?**

YES .... ☐ 1 → (SKIP TO HEALTH INSURANCE SECTION ON PAGE 113)

NO .... ☐ 2

DON'T KNOW .... ☐ 94

AC-7. **What is the main reason (you/SAMPLE MEMBER) would not use that place for medical care now?**

® CHANGED RESIDENCE/ MOVED ☐ 1
® CHANGED JOBS ☐ 2
EMPLOYER CHANGED INSURANCE COMPANIES ☐ 3
FORMER USUAL SOURCE LEFT AREA ☐ 4
OWED MONEY TO FORMER USUAL SOURCE ☐ 5
DISSATISFIED WITH FORMER SOURCE/LIKED NEW SOURCE BETTER ☐ 6
MEDICAL CARE NEEDS CHANGED ☐ 7
FORMER USUAL SOURCE STOPPED TAKING INSURANCE/ COVERAGE ☐ 8
OTHER REASON (SPECIFY): ______________________________ ☐ 9
DON'T KNOW ☐ 94

→ (SKIP TO HEALTH INSURANCE ON PAGE 113)

AC-8. **What kind of place is it -- a clinic, a health center, a hospital, a doctor's office, or some other place?**

DOCTOR'S OFFICE OR PRIVATE CLINIC ☐ 1
COMPANY OR SCHOOL HEALTH CLINIC/CENTER ☐ 2
COMMUNITY/MIGRANT/RURAL CLINIC OR CENTER ☐ 3
COUNTY/CITY/PUBLIC HOSPITAL OUTPATIENT CLINIC ☐ 4
PRIVATE/OTHER HOSPITAL OUTPATIENT CLINIC ☐ 5
HOSPITAL EMERGENCY ROOM ☐ 6
HMO (HEALTH MAINTENANCE ORGANIZATION/PRE-PAID GROUP) ☐ 7
PSYCHIATRIC HOSPITAL OR CLINIC ☐ 8
VA HOSPITAL OR CLINIC ☐ 9
MILITARY HEALTH CARE FACILITY ☐ 10
SOME OTHER PLACE (SPECIFY): ______________________________ ☐ 11

HEALTH INSURANCE

The next questions are about your health insurance coverage and the kinds and amounts of income that you receive. The answers to these questions will add greatly to our knowledge about the health problems of the American people, the types of health care they receive, and whether they can afford the care that they need. This information will help in planning health care services and finding ways to lower costs of care.

HI-1. **Several government programs provide medical care or help pay medical bills.** (HAND ® SHOWCARD 10.) **People covered by Medicare have a card that looks like this.** (PAUSE) **(Are you/Is (SAMPLE MEMBER)) covered by Medicare?** Medicare is a health insurance program for persons 65 and older and for certain disabled persons.

YES .... ☐1
NO .... ☐2

(TAKE BACK SHOWCARD 10.)

HI-2. **(Are you/Is (SAMPLE MEMBER)) currently covered by Medicaid or Medical Assistance?** Medicaid or Medical Assistance is a public assistance program that pays for medical care. (In this state, Medicaid is also known as (MEDICAID STATE NAME(S)); Medical Assistance may be known as (MEDICAL ASSISTANCE STATE NAME(S)).)

YES .... ☐1
NO .... ☐2

HI-3. **(Are you/Is (SAMPLE MEMBER)) currently covered by CHAMPUS or TRICARE, CHAMPVA, the VA, or military health care?** These programs cover active duty and retired career military personnel and their dependents and survivors and also disabled veterans and their dependents and survivors.

YES .... ☐1
NO .... ☐2

HI-4. **Private health insurance can be obtained through work, such as through an employer, union, or professional association, or by paying premiums directly to a health insurance company. (Are you/Is (SAMPLE MEMBER)) currently covered by private health insurance?**

YES .... ☐1 → (ASK Q HI-5.)
NO .... ☐2 → (SKIP TO FI CHECKPOINT II)

HI-5. **Was (your/SAMPLE MEMBER'S) private health insurance obtained through work, such as through an employer, union, or professional association?**

YES .... ☐1
NO .... ☐2

BEST COPY AVAILABLE

HI-6. **Does (your/(SAMPLE MEMBER'S)) private health insurance include coverage for treatment for any of the following conditions?** (READ ALL CATEGORIES.)

	YES	NO	DON'T KNOW
a. **Alcohol abuse or alcoholism?**	☐ 1	☐ 2	☐ 94
b. **Drug abuse?**	☐ 1	☐ 2	☐ 94
c. **Mental or emotional difficulties?**	☐ 1	☐ 2	☐ 94

FI	Q.HI-1 **OR** Q.HI-2 **OR** Q.HI-3 **OR** Q.HI-4 = YES	☐ 1 →	(CONTINUE WITH Q.HI-7 BELOW)
CHECKPOINT	Q.HI-1 **AND** Q.HI-2 **AND** Q.HI-3 **AND** Q.HI-4 = NO	☐ 2 →	(SKIP TO Q.HI-9)
II	Q.HI-1 THROUGH Q.HI-4 **ALL** = DK/REF	☐ 3 →	(SKIP TO INCOME ON P. 116)

HI-7. **During the past 12 months, was there any time when (you/(SAMPLE MEMBER)) did not have any kind of health insurance or coverage?**

YES ☐ 1 → (CONTINUE WITH Q.HI-8.)
NO ☐ 2 → (SKIP TO INCOME ON P. 116.)

HI-8. **During the past 12 months, about how many months were (you/(SAMPLE MEMBER)) without any kind of health insurance or coverage?**

NUMBER OF MONTHS WITHOUT COVERAGE |____| → (SKIP TO INCOME ON P. 116)

HI-9. **About how long has it been since (you/(SAMPLE MEMBER)) last had any kind of health care coverage? Would you say it's been ...**

within the past 6 months ☐ 1
more than 6 months ago, but within the past 12 months ☐ 2
more than 12 months ago, but within the past 3 years ☐ 3
more than 3 years ago, or ☐ 4
have you never had any coverage? ☐ 5 → (SKIP TO Q.HI-11.)

HI-10. (HAND R SHOWCARD 11.) **When you were last covered, what kind of health care coverage did you have?** MARK ALL THAT APPLY.

PRIVATE HEALTH INSURANCE ☐ 1
MEDICAID OR MEDICAL ASSISTANCE ☐ 2
MILITARY HEALTH CARE (CHAMPUS, TRICARE, CHAMPVA, the VA) ☐ 3
MEDICARE ☐ 4
SOME OTHER GOVERNMENT PROGRAM ☐ 5
SOME OTHER KIND OF COVERAGE (SPECIFY) ☐ 6

____

(TAKE BACK SHOWCARD 11.)

BEST COPY AVAILABLE

HI-11. (HAND ® SHOWCARD 12.) **Which of the reasons on this card describe why (you/(SAMPLE MEMBER)) (stopped being covered by health insurance/never had health insurance)?**

PERSON IN FAMILY WITH HEALTH INSURANCE LOST JOB OR CHANGED EMPLOYERS .... ☐ 1

LOST MEDICAID OR MEDICAL ASSISTANCE COVERAGE BECAUSE OF NEW JOB OR INCREASE IN INCOME .... ☐ 2

LOST MEDICAID OR MEDICAL ASSISTANCE COVERAGE FOR SOME OTHER REASON .... ☐ 3

COST IS TOO HIGH/CAN'T AFFORD PREMIUMS .... ☐ 4

BECAME INELIGIBLE BECAUSE OF AGE OR LEAVING SCHOOL .... ☐ 5

EMPLOYER DOES NOT OFFER COVERAGE, OR NOT ELIGIBLE FOR COVERAGE .... ☐ 6

GOT DIVORCED OR SEPARATED FROM PERSON WITH INSURANCE .... ☐ 7

DEATH OF SPOUSE OR PARENT .... ☐ 8

INSURANCE COMPANY REFUSED COVERAGE .... ☐ 9

DON'T NEED IT .... ☐ 10

SOME OTHER REASON (SPECIFY): .... ☐ 11

____

(TAKE BACK SHOWCARD 12).

INCOME

These next questions are about the kinds and amounts of income that you receive. These questions refer to the calendar year 1997 rather than to the past 12 months that were referred to in some earlier questions. The calendar year 1997 would be from January 1, 1997, through December 31, 1997.

I-1. **In 1997, did (you/(SAMPLE MEMBER)) receive Social Security or Railroad Retirement payments?** Social Security checks are either automatically deposited in the bank or mailed to arrive on about the 3rd of every month. If mailed, they are sent in a gold envelope.

YES .... ☐1 → (SKIP TO Q. I-3)
NO .... ☐2 → (IF NO OTHER FAMILY MEMBERS IN HH, SKIP TO Q. I-3, OTHERWISE ASK Q. I-2.)

I-2. **In 1997, did any other family member living here receive Social Security or Railroad Retirement payments?**

YES .... ☐1
NO .... ☐2

I-3. **In 1997, did (you/(SAMPLE MEMBER)) receive Supplemental Security Income or SSI?** Federal SSI checks are either automatically deposited in the bank or mailed to arrive on the first of every month.
If mailed, they are sent in a blue envelope.

YES .... ☐1 → (SKIP TO Q. I-5)
NO .... ☐2 → (IF NO OTHER FAMILY MEMBERS IN HH, SKIP TO Q. I-5, OTHERWISE ASK Q. I-4.)

I-4. **In 1997, did any other family member living here receive Supplemental Security Income or SSI?**

YES .... ☐1
NO .... ☐2

I-5. **At any time during 1997, even for one month, did (you/(SAMPLE MEMBER)) receive any government payments because (your/(SAMPLE MEMBER'S)) income was low, such as temporary assistance for needy families or public assistance?**

YES .... ☐1 → (SKIP TO Q. I-7)
NO .... ☐2 → (IF NO OTHER FAMILY MEMBERS IN HH, SKIP TO Q. I-8, OTHERWISE ASK Q. I-6.)

I-6. **At any time during 1997, even for one month, did any other family member living here receive any government payments because his/her income was low, such as temporary assistance for needy families or public assistance?**

YES .... ☐1
NO .... ☐2 → (SKIP TO Q I-8)

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I-7. **Did (you/(SAMPLE MEMBER)) or another family member living in your household receive Aid to Families with Dependent Children, sometimes called AFDC or ADC, or was it some other type of assistance payments in 1997?**

AFDC/ADC .... ☐ 1
OTHER .... ☐ 2
BOTH .... ☐ 3

I-8. **In 1997, did (you/(SAMPLE MEMBER)) or anyone in your family living here receive food stamps?**

YES .... ☐ 1
NO .... ☐ 2

I-9. **In 1997, because of low income, did (you/(SAMPLE MEMBER)) receive any other kind of welfare assistance, such as help with getting a job, placement in education or job training programs, or help with transportation, child care, or housing?**

YES .... ☐ 1 → (SKIP TO Q. I-11.)
NO .... ☐ 2 → (IF NO OTHER FAMILY MEMBERS IN HH, SKIP TO FI CHECKPOINT JJ, OTHERWISE ASK Q. I-10.)

I-10. **In 1997, because of low income, did any other family member living here receive any other kind of welfare assistance, such as help with getting a job, placement in education or job training programs, or help with transportation, child care, or housing?**

YES .... ☐ 1
NO .... ☐ 2

FI CHECKPOINT JJ	ANY QUESTION Q.I-5 THROUGH Q.I-10 MARKED "YES"?	☐ 1	→ (CONTINUE WITH Q.I-11 BELOW)
	NONE OF THE QUESTIONS Q.I-5 THROUGH Q.I-10 MARKED "YES"?	☐ 2	→ (SKIP TO Q.I-12)

I-11. **For how many months in 1997 did (you/(SAMPLE MEMBER)) or any other family member living here receive any type of welfare assistance?**

NUMBER OF MONTHS RECEIVED ASSISTANCE ...... |____|

I-12. **In 1997, did (you/(SAMPLE MEMBER)) have money in any kind of savings or other bank account that earned interest or did (you/(SAMPLE MEMBER)) receive dividend income from stocks or mutual funds or income from rental property, royalties, estates, or trusts?** Include money market funds, treasury notes, IRAs or certificates of deposit, interest earning checking accounts, bonds, or any other investments that earn interest.

YES .... ☐1 ➔ (SKIP TO Q. I-14)
NO .... ☐2 ➔ (IF NO OTHER FAMILY MEMBERS IN HH, SKIP TO Q. I-14, OTHERWISE ASK Q. I-13.)

I-13. **In 1997, did any other family member living here have money in any kind of savings or other bank account that earned interest or did they receive dividend income from stocks or mutual funds or income from rental property, royalties, estates, or trusts?**

YES .... ☐1
NO .... ☐2

I-14. **In 1997, did (you/(SAMPLE MEMBER)) receive any child support payments?**

YES .... ☐1 ➔ (SKIP TO Q. I-16)
NO .... ☐2 ➔ (IF NO OTHER FAMILY MEMBERS IN HH, SKIP TO Q. I-16, OTHERWISE ASK Q. I-15.)

I-15. **In 1997, did any other family member living here receive any child support payments?**

YES .... ☐1
NO .... ☐2

I-16. **In 1997, did (you/(SAMPLE MEMBER)) receive income from wages or pay earned while working at a job or business?**

YES .... ☐1 ➔ (SKIP TO Q.I-18.)
NO .... ☐2 ➔ (IF NO OTHER FAMILY MEMBERS IN HH, SKIP TO Q.I-18, OTHERWISE ASK Q.I-17.)

I-17. **In 1997, did any other family member living here receive income from wages or pay earned while working at a job or business?**

YES .... ☐1
NO .... ☐2

I-18. **In 1997, did (you/(SAMPLE MEMBER)) receive income from any other sources, such as Veterans Administration payments, worker's or unemployment compensation, alimony, other disability, retirement or survivor pension (other than Social Security or Railroad Retirement)? Do not include lump sum payments, such as money from an inheritance or the sale of a home.**

YES .... ☐1 → (SKIP TO Q. I-20)
NO .... ☐2 → (IF NO OTHER FAMILY MEMBERS IN HH, SKIP TO Q. I-20, OTHERWISE ASK Q. I-19.)

I-19. **In 1997, did any other family member living here receive income from any other sources, such as Veterans Administration payments, worker's or unemployment compensation, alimony, other disability, retirement or survivor pension (other than Social Security or Railroad Retirement)? Do not include lump sum payments, such as money from an inheritance or the sale of a home.**

YES .... ☐1
NO .... ☐2

I-20. **The next two questions are about (your/(SAMPLE MEMBER'S)) total personal income during 1997 from all sources.** Include money from (your/(SAMPLE MEMBER'S)) jobs, social security, retirement income, unemployment payments, public assistance, and so forth. Also include income from interest, dividends, net income from business, farm, or rent, and any other money income (you/(SAMPLE MEMBER)) received.

Was (your/(SAMPLE MEMBER'S)) total personal income during 1997 more or less than $20,000? Income data is important in analyzing the health information we collect. For example, the information helps us to learn whether persons in one income group use certain types of medical care services or have conditions more or less often than those in another group.

$20,000 OR MORE .... ☐1 → (HAND SHOWCARD 13)
LESS THAN $20,000 .... ☐2 → (HAND SHOWCARD 14)

I-21. **Of these income groups, which letter best represents (your/(SAMPLE MEMBER'S)) total personal income during 1997? Include wages, salaries, and other items we just talked about.** Income data is important in analyzing the health information we collect. For example, the information helps us to learn whether persons in one income group use certain types of medical care services or have conditions more or less often than those in another group.

A	... LESS THAN $1,000 (INCLUDING LOSS)	☐ 1
B	... $1,000 - $1,999	☐ 2
C	... $2,000 - $2,999	☐ 3
D	... $3,000 - $3,999	☐ 4
E	... $4,000 - $4,999	☐ 5
F	... $5,000 - $5,999	☐ 6
G	... $6,000 - $6,999	☐ 7
H	... $7,000 - $7,999	☐ 8
I	... $8,000 - $8,999	☐ 9
J	... $9,000 - $9,999	☐ 10
K	... $10,000 - $10,999	☐ 11
L	... $11,000 - $11,999	☐ 12
M	... $12,000 - $12,999	☐ 13
N	... $13,000 - $13,999	☐ 14
O	... $14,000 - $14,999	☐ 15
P	... $15,000 - $15,999	☐ 16
Q	... $16,000 - $16,999	☐ 17
R	... $17,000 - $17,999	☐ 18
S	... $18,000 - $18,999	☐ 19
T	... $19,000 - $19,999	☐ 20
U	... $20,000 - $24,999	☐ 21
V	... $25,000 - $29,999	☐ 22
W	... $30,000 - $34,999	☐ 23
X	... $35,000 - $39,999	☐ 24
Y	... $40,000 - $44,999	☐ 25
Z	... $45,000 - $49,999	☐ 26
AA	... $50,000 - $74,999	☐ 27
BB	... $75,000 OR MORE	☐ 28

(TAKE BACK SHOWCARD 13 OR 14.)

FI CHECKPOINT KK	ARE THERE OTHER FAMILY MEMBERS LIVING IN THIS HOUSEHOLD? YES .... ☐1 → (CONTINUE WITH Q.I-22) NO .... ☐2 → (SKIP TO Q.I-24 ON PAGE 123)

I-22. **The next two questions are about the total family income during 1997 from all sources. We would like you to combine everyone's income -- that is, yours and your (mother's/ father's/stepmother's/stepfather's/ wife's/husband's/etc.).** Include money from all jobs, social security, retirement income, unemployment payments, public assistance, and so forth. Also include income from interest, dividends, net income from business, farm, or rent, and any other money income you received.

Was the total combined family income during 1997 more or less than $20,000? Income data is important in analyzing the health information we collect. For example, the information helps us to learn whether persons in one income group use certain types of medical care services or have conditions more or less often than those in another group.

$20,000 OR MORE .... ☐1 → (HAND SHOWCARD 13)

LESS THAN $20,000 .... ☐2 → (HAND SHOWCARD 14)

I-23. **Of these income groups, which letter best represents the total combined family income during 1997 (that is, yours and your (mother's/father's/stepmother's/stepfather's/wife's/husband's/etc.)? Include wages, salaries, and other items we just talked about.** Income data is important in analyzing the health information we collect. For example, the information helps us to learn whether persons in one income group use certain types of medical care services or have conditions more or less often than those in another group.

A	... LESS THAN $1,000 (INCLUDING LOSS)	☐ 1
B	... $1,000 - $1,999	☐ 2
C	... $2,000 - $2,999	☐ 3
D	... $3,000 - $3,999	☐ 4
E	... $4,000 - $4,999	☐ 5
F	... $5,000 - $5,999	☐ 6
G	... $6,000 - $6,999	☐ 7
H	... $7,000 - $7,999	☐ 8
I	... $8,000 - $8,999	☐ 9
J	... $9,000 - $9,999	☐ 10
K	... $10,000 - $10,999	☐ 11
L	... $11,000 - $11,999	☐ 12
M	... $12,000 - $12,999	☐ 13
N	... $13,000 - $13,999	☐ 14
O	... $14,000 - $14,999	☐ 15
P	... $15,000 - $15,999	☐ 16
Q	... $16,000 - $16,999	☐ 17
R	... $17,000 - $17,999	☐ 18
S	... $18,000 - $18,999	☐ 19
T	... $19,000 - $19,999	☐ 20
U	... $20,000 - $24,999	☐ 21
V	... $25,000 - $29,999	☐ 22
W	... $30,000 - $34,999	☐ 23
X	... $35,000 - $39,999	☐ 24
Y	... $40,000 - $44,999	☐ 25
Z	... $45,000 - $49,999	☐ 26
AA	... $50,000 - $74,999	☐ 27
BB	... $75,000 OR MORE	☐ 28

(TAKE BACK SHOWCARD 13 OR 14.)

I-24. **The last question is: How many different telephone numbers do you have in this household? Don't count business numbers or extensions with the same number.**

NUMBER OF TELEPHONE NUMBERS IN HOUSEHOLD .... |____|

FI CHECKPOINT LL	THANK ®. BE SURE YOU HAVE ALL SHOWCARDS AND PILLCARDS. RECORD THE TIME HERE. TIME WHEN REACHED THIS POINT .... |___| : |___| HOUR MIN. INDICATE TIME OF DAY: A.M. .... ☐ 1 P.M. .... ☐ 2

(READ ALOUD TO ALL ®'s):

Before we seal the envelope, there are a couple of forms I have to complete, and I need your help with one of them. (TEAR OUT VERIFICATION FORM FROM THIS BOOKLET. IF PAPER SCREENING, PEEL THIS ®'S CORRECT LABEL OFF OF SCREENING FORM, AND PLACE IT ON VERIFICATION FORM. PRINT FI NAME AND ID # ON VERIFICATION FORM.)

It is important that I do my job correctly; therefore, my supervisors will be checking on my work. Would you help me by printing your address and home telephone number on this form? Then place it in the postage-paid envelope so that my supervisor can write or call you in several weeks to confirm that I did my job. As you can see, this is kept separate from your answers so they will still be completely private.

While you are completing the verification form, I will be finishing some forms to show that I did the interview. Let me know when you are finished. Thank you very much for your help.

(COMPLETE QUESTIONS FI-1 THROUGH FI-8.)

FIELD INTERVIEWER OBSERVATIONS

FI-1. Sign your name and record your field interviewer identification number.

F.I. SIGNATURE: ________________________________

F.I. ID #: .... |________|

FI-2. Estimate the respondent's understanding of the interview.

No difficulty--no language or reading problem .... ☐ 1
Just a little difficulty--almost no language or reading problem ...... ☐ 2
A fair amount of difficulty--some language or reading problem ...... ☐ 3
A lot of difficulty--considerable language or reading problem ...... ☐ 4

FI-3. How cooperative has the respondent been?

Very cooperative ☐ 1
Fairly cooperative ☐ 2
Not very cooperative ☐ 3
Openly hostile ☐ 4

FI-4. How private was the interview?

Completely private--no one was in the room or could overhear any part of the interview ☐ 1 → (SKIP TO Q.FI-6)
Fairly private--person(s) in the room or listening less than ¼ of the time ☐ 2
Somewhat private--person(s) in the room or listening ¼ to ½ of the time ☐ 3
Not very private--serious interruptions of privacy more than half the time ☐ 4
Not private at all--constant presence of other person(s) ☐ 5

FI-5. Other people present or listening to the interview were ... (MARK ALL THAT APPLY.)

Parent(s) ☐ 1
Spouse ☐ 2
Live-in partner/boyfriend/girlfriend ☐ 3
Other adult relative(s) ☐ 4
Other adult(s) ☐ 5
Child(ren) under 15 ☐ 6
Other (SPECIFY): ____________________ ☐ 7
(RELATIONSHIP(S) TO ®)

FI-6. Who marked the responses on the Answer Sheets? (MARK ONLY ONE BOX.)

Respondent marked all the Answer Sheet responses ☐ 1 → (SKIP TO Q.FI-8)
Interviewer marked all the Answer Sheet responses ☐ 2

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D-6: Year-End 1997 Emergency Department Data from the Drug Abuse Warning Network
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(Continued on next page)

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S-4R: National Directory of Drug Abuse and Alcoholism Treatment and Prevention Programs 1997
S-5: National Admissions to Substance Abuse Treatment Services: The Treatment Episode Data Set (TEDS) 1992-1996
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SAMHSA
DHHS Publication No. (SMA) 00-3381
Substance Abuse and Mental Health Services Administration
Printed 2000

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